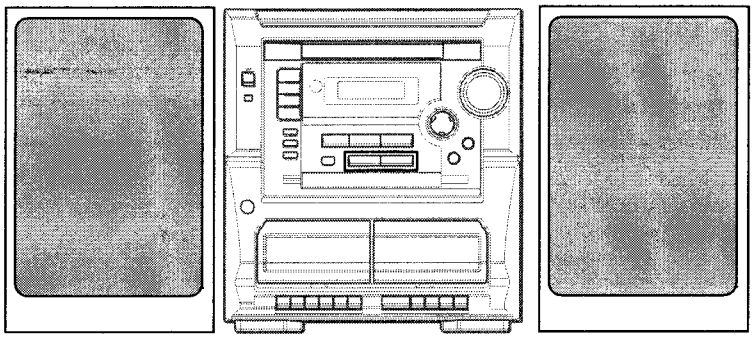
aiwa SERVICE

Z-L100 EZ,K



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : AZG-1 ZD8RN1DM

SYSTEM	CD CASSEIVER	SPEAKER	STEREO TURNTABLE	REMOTE CONTROLLER
Z-L100	CX-ZL100 (TYPE : EZ)	SX-ZL100	-	RC-ZAS02
	CX-ZL100 (TYPE : K)		PX-E860	

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" Z-L100 (EZ,K), (S/M Code No. 09-002-422-5T2).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N6).
- If requiring information about the Stereo Turntable, see Service Manual of PX-E860 (K), (S/M Code No. 09-993-322-0R4).

aiwa

S/M Code No. 09-004-422-5R2

REVISION DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated : 30 W + 30 W (1 kHz, T.H.D. 1 %, 6 ohms) Reference : 37 W + 37 W (6 ohms, T.H.D. 10 %, 1 kHz) DIN MUSIC POWER : 54 W + 54 W<EZ>
Total harmonic distortion	0.1 % (6 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO / AUX / PHONO IN : 500 mV
Outputs	CD DIGITAL OUT (OPTICAL) SPEAKERS : accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

<Compact disc player section>

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 16000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording / Playback / erase head x 1 Deck 2 : Playback head x 1

<Speaker system SX–ZL100>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 130 mm ($5^1/_8$ in.) cone type Tweeter: 60 mm ($2^3/_8$ in.) cone type Super tweeter: 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions	260 x 496 x 220 mm
(W x H x D)	($10^1/_4$ x $19^5/_8$ x $8^3/_4$ in.)
Weight	3.7 kg (8 lbs 3 oz.)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	70 W
Dimensions of main unit	360 x 393 x 342 mm
(W x H x D)	($14^1/_4$ x $15^1/_2$ x $13^1/_2$ in.)
Weight of main unit	7.7 kg (17 lbs)

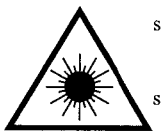
Standby power consumption
If the power-economizing mode is OFF : 17 W
If the power-economizing mode is AUTO or ON : 0.9 W

• Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



s Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
s Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

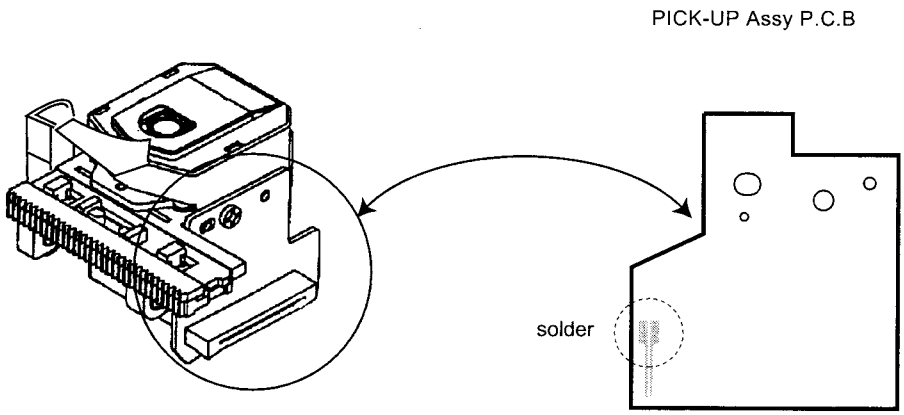
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSM-880CAB)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

1 Remove the AC power cord.
2 Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
3 Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
4 Contact the same end of the discharging resistor as step 3 to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
5 Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

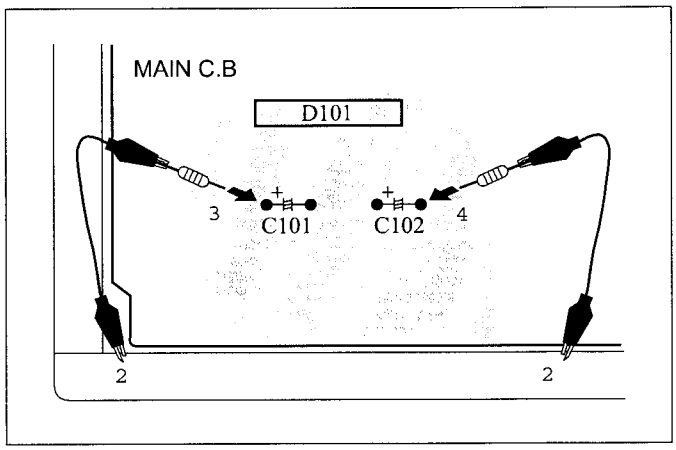


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

1 Turn on the AC main power.
2 Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
3 When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

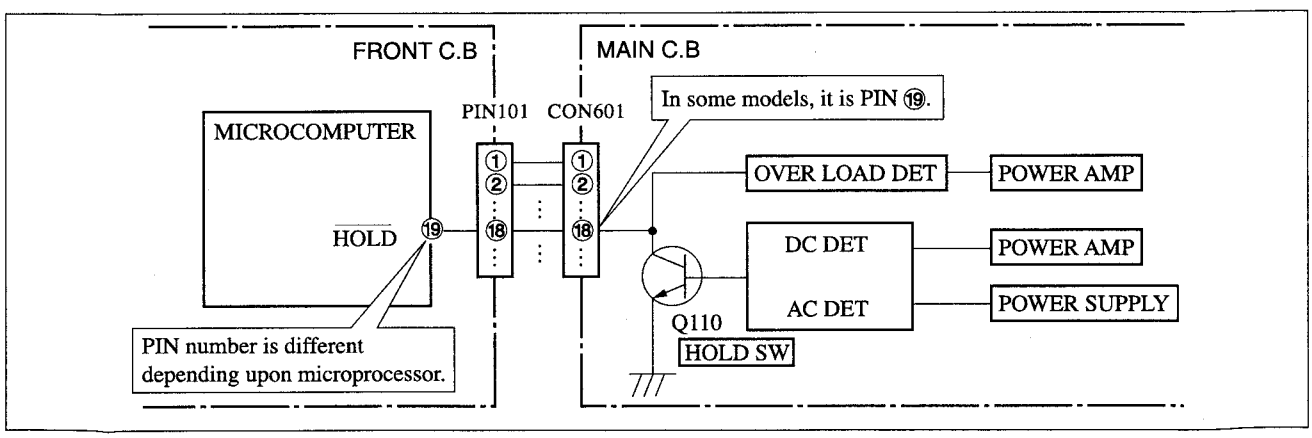


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

1 Remove the AC power cord.

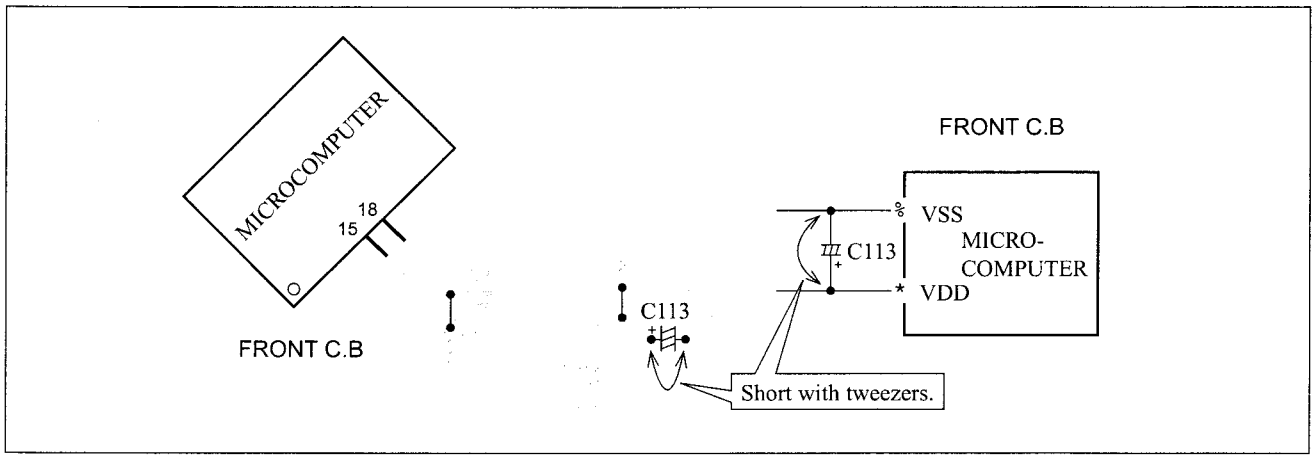


Fig-2-2

2 Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.

3 Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8A-NFA-616-010		C-IC,M38B59MFH-E251FP
	87-A21-396-010		IC,STK490-040
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-415-010		IC,LA1843
	87-070-127-110		IC,LC72131 D
	87-A21-482-010		RPM6938-H4
	87-A20-440-040		C-IC,BU1920FS
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-026-245-080		TR,DTC114ES
	87-A30-090-080		FET,2SK2541
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-235-080		CHIP-TR,DTC114EK
	87-A30-091-080		FET,2SJ460
	89-333-317-880		TR,2SC3331 (T/U)
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714O
	89-503-602-080		C-FET,2SK360E
	87-A30-318-080		TR,CSA952K
	87-A30-062-080		C-TR,KRC104S
	87-A30-489-080		C-TR,KRA107S
	87-A30-086-040		C-TR,CSD1306E
	87-A30-484-080		C-TR,KRA102S
DIODE			
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-455-080		DIODE,RL203 GW
	87-A40-553-080		DIODE,IN4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-291-080		DIODE,1N4148M CPT)
	87-017-154-080		ZENER,HZS6C3L
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
	87-020-465-080		DIODE,1SS133
	87-A40-768-080		ZENER,UZ16BSA
MAIN C.B			
C3	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C4	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C5	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C6	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C9	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C10	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C11	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C12	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C19	87-010-917-000		CAP,E 3300-50 M SMG
C20	87-010-917-000		CAP,E 3300-50 M SMG
C21	87-010-389-090		CAP,E 2200-25 M SMG
C22	87-010-389-090		CAP,E 2200-25 SMG
C25	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C26	87-010-247-080		CAP, ELECT 100-50V M 11L SME
C30	87-010-430-080		CAP, ELECT 100-63
C31	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C32	87-010-197-080		CAP, CHIP 0.01-25 KB
C34	87-010-384-080		CAP, ELECT 100-25V M 11L SME
C35	87-010-380-080		CAP, ELECT 47-16 M 11L SME
C36	87-010-381-080		CAP,E 330-16 M SME
C38	87-010-197-080		C-CAP,S 0.01-25 KB
C60	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C61	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C97	87-010-196-080		C-CAP,S 0.1-25 ZF
C99	87-010-805-080		C-CAP,S 1-16 ZF
C101	87-010-183-080		C-CAP,S 2700P-50 KB
C102	87-010-183-080		C-CAP,S 2700P-50 KB
C103	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C104	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C105	87-010-184-080		CHIP CAP 3300P-50 KB
C106	87-010-184-080		CHIP CAP 3300P-50 KB
C107	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C108	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C109	87-012-157-080		C-CAP,S 330P-50 J CH
C110	87-012-157-080		C-CAP,S 330P-50 J CH
C111	87-010-391-080		CAP,E 10-35 M 11L SME
C112	87-010-391-080		CAP,E 10-35 M 11L SME
C113	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C114	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C119	87-010-197-080		CAP, CHIP 0.01-25 KB
C120	87-010-197-080		CAP, CHIP 0.01-25 KB
C123	87-010-184-080		C-CAP,S 3300P-50 KB
C124	87-010-184-080		C-CAP,S 3300P-50 KB
C125	87-012-368-080		C-CAP,S 0.1-50 ZF
C126	87-012-368-080		C-CAP,S 0.1-50 ZF
C127	87-012-368-080		C-CAP,S 0.1-50 ZF
C128	87-012-368-080		C-CAP,S 0.1-50 ZF
C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C131	87-010-197-080		CAP, CHIP 0.01-25 KB
C132	87-010-197-080		CAP, CHIP 0.01-25 KB
C133	87-010-186-080		CAP,CHIP 4700P-50 KB
C140	87-010-182-080		C-CAP,S 2200P-50 KB
C241	87-010-181-080		C-CAP,S 1800P-50 KB
C242	87-010-181-080		C-CAP,S 1800P-50 KB
C301	87-010-180-080		CHIP CAP 1500P-50 KB
C302	87-010-180-080		CHIP CAP 1500P-50 KB
C303	87-010-180-080		CHIP CAP 1500P-50 KB
C304	87-010-180-080		CHIP CAP 1500P-50 KB
C305	87-010-198-080		CAP, CHIP 0.022-25 KB
C307	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C308	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C309	87-010-297-080		C-CAP,100P-50 J CH
C310	87-010-297-080		C-CAP,100P-50 J CH
C311	87-010-598-080		C-CAP,S 0.068-16VRK
C312	87-010-598-080		C-CAP,S 0.068-16VRK
C313	87-010-187-080		CAP CHIP S5600P-50 KB
C314	87-010-187-080		CAP CHIP S5600P-50 KB
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C318	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C326	87-010-198-080		CAP, CHIP 0.022-25 KB
C327	87-010-196-080		CHIP CAPACITOR,0.1-25
C360	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C365	87-010-197-080		C-CAP,S 0.01-50 KB
C399	87-012-140-080		CAP 470P-50 J CH
C401	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C402	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C403	87-012-145-080		CAP, CHIP S 270P-50 CH
C404	87-012-145-080		CAP, CHIP S 270P-50 CH
C405	87-010-197-080		CAP, CHIP 0.01-25 DM
C406	87-010-197-080		CAP, CHIP 0.01-25 DM
C407	87-010-197-080		CAP, CHIP 0.01-25 DM
C408	87-010-197-080		CAP, CHIP 0.01-25 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C412	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C452	87-010-382-080		CAP, ELECT 22-25V M 11L SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01-25 DM
C458	87-010-178-080		CHIP CAP 1000P-50
C459	87-010-175-080		CAP 560P-50
C460	87-010-196-080		C-CAP,S 0.1-25 ZF
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C601	87-012-140-080		CAP,CHIP S 470P-50 J CH
C602	87-012-140-080		CAP,CHIP S 470P-50 J CH
C609	87-010-213-080		C-CAP,S 0.015-25 B
C610	87-010-213-080		C-CAP,S 0.015-25 B
C611	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C612	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C613	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C614	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C615	87-010-154-080		CAP CHIP 10P-50 D CH
C616	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C617	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C618	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C630	87-A10-201-080		C-CAP, S 0.33-16 KB
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01-25 DM
C678	87-010-197-080		CAP, CHIP 0.01-25 DM
C771	87-010-263-080		CAP, ELECT 100-10VM 11L SME
C772	87-010-197-080		CAP, CHIP 0.01-25 KB
C779	87-010-958-080		C-CAP,S 0.1-25 JB
C780	87-010-958-080		C-CAP,S 0.1-25 JB
C782	87-010-197-080		CAP, CHIP 0.01-25 KB
C783	87-010-197-080		CAP, CHIP 0.01-25 KB
C784	87-010-197-080		CAP, CHIP 0.01-25 KB
C785	87-010-197-080		CAP, CHIP 0.01-25 KB
C786	87-010-197-080		CAP, CHIP 0.01-25 KB
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A10-801-080		C-CAP,S 0.022-16 JB
C790	87-A10-801-080		C-CAP,S 0.022-16 JB
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01-25 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C795	87-010-197-080		CAP, CHIP 0.01-25 DM
C796	87-010-197-080		CAP, CHIP 0.01-25 DM
C797	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C798	87-010-197-080		CAP, CHIP 0.01-25 DM
C799	87-010-407-080		CAP, ELECT 33-50V M 11L SME
C800	87-018-095-080		CAP, TC 0.01-25 KXR
C801	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C803	87-010-198-080		CAP, CHIP 0.022-25 KB
C804	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C807	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C808	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C809	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01-25 KB
C815	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C816	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C818	87-010-180-080		C-CAP,S 1500P-50 KB
C821	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C823	87-012-349-080		C-CAP,S 1000P-50 J CH
C824	87-010-405-080		CAP, ELECT 10-50 M 11L SME
C825	87-010-596-080		CAP, S 0.047-16
C831	87-010-406-080		CAP,E 22-50 M 11L SME
C842	87-010-197-080		CAP, CHIP 0.01-25 KB
C844	87-010-197-080		CAP, CHIP 0.01-25 KB
C850	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C851	87-010-197-080		CAP, CHIP 0.01-25 KB
C852	87-010-197-080		CAP, CHIP 0.01-25 KB
C853	87-010-197-080		CAP, CHIP 0.01-25 KB
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01-25 KB
C862	87-010-401-080		CAP,E 1-50 M 11L SME
C869	87-010-197-080		CAP, CHIP 0.01-25 KB
C871	87-012-156-080		C-CAP,S 220P-50 J CH
C872	87-012-156-080		C-CAP,S 220P-50 J CH
C873	87-012-140-080		C-CAP,S 470P-50 J CH
C874	87-010-405-080		CAP,E 10-50 M 11L SME
C875	87-010-196-080		CHIP CAPACITOR,0.1-25
C876	87-010-405-080		CAP,E 10-50 M 11L SME
C877	87-010-197-080		CAP, CHIP 0.01-25 KB
C878	87-010-316-080		C-CAP,S 33P-50 J CH
C879	87-010-314-080		C-CAP,S 22P-50 J CH
C940	87-010-197-080		CAP, CHIP 0.01-25 KB
C942	87-010-149-080		C-CAP,S 55P-50 J CH
C947	87-010-197-080		CAP, CHIP 0.01-25 KB
C948	87-012-140-080		C-CAP,S 470P-50 J CH
C952	87-010-197-080		CAP, CHIP 0.01-25 KB
C957	87-010-311-080		C-CAP,S 12P-50 J CH
C958	87-010-197-080		CAP, CHIP 0.01-25 KB
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50 M 11L SME
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V M 11L SME
C972	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C973	87-010-197-080		CAP, CHIP 0.01-25 KB
C974	87-010-197-080		CAP, CHIP 0.01-25 KB
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01-25 KB
C984	87-010-197-080		CAP, CHIP 0.01-25 KB
C985	87-010-322-080		C-CAP,S 100P-50 J CH
C987	87-010-197-080		CAP, CHIP 0.01-25 KB
C989	87-010-197-080		CAP, CHIP 0.01-25 KB
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P-50 KB
C995	87-010-178-080		CHIP CAP 1000P-50 KB
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25 M 11L SME
C999	87-A11-145-080		CAP,TC U 0.01-50 ZF
CF831	87-008-423-010		FILTER,CF SFE10.7MS3G-A
CF832	82-785-747-010		CF,MS2 GHY,R
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	88-NF9-657-010		CONN,30P H BLK TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA1	8A-MA6-643-110		F-CABLE,9P 2.5 450MM
CON301	8A-MA6-642-010		CONN ASSY,3P (PH)
CON351	8A-MA6-641-010		CONN ASSY,8P (RPB)
FB602	87-A90-896-080		F-BEAD,035600STY7
FC602	88-906-321-110		FF-CABLE,6P 1.25 320MM
FFE831	A8-6ZA-191-130		6ZA-1 FEENM
J202	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
JW102	87-003-223-080		F-BEAD,BL02RN2
JW622	87-A90-896-080		F-BEAD,035600STY7
L101	87-003-383-010		COIL,1UH-K
L102	87-003-383-010		COIL,1UH-K
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-540-010		COIL,FM DET(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UHK (CECS)
L832	87-005-847-080		COIL,2.2UHK (CECS)
L861	87-005-847-080		COIL,2.2UHK (CECS)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L941	87-A50-020-010		COIL,ANT LW (COI) 252KHZ
L942	87-A50-019-010		COIL,OSC LW (COI) 856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R131	87-A00-669-080		RES,M/F 0.22-2W J RA
R132	87-A00-669-080		RES,M/F 0.22-2W J RA
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R790	87-010-197-080		C-CAP,S 0.01-25 KB
R991	87-010-322-080		C-CAP,S 100P-50 J CH
R992	87-010-322-080		C-CAP,S 100P-50 J CH
R995	87-010-322-080		C-CAP,S 100P-50 J CH
SFR451	87-024-355-080		SFR,33K H EVN DJAA03
SFR452	87-024-355-080		SFR,33K H EVN DJAA03
TC942	87-011-253-080		TRIMMER,CER 30P 4.0X4.5 ECRLA
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

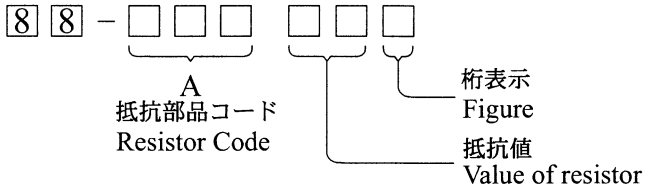
C101	87-A11-147-080		CAPACTOR TC U 0.047-50 ZF
C103	87-010-248-040		CAP,E 220-10 SME
C104	87-010-246-040		CAP,E 47-35 SME
C105	87-A11-146-080		CAP,TC U 0.022-50 ZF
C107	87-018-205-080		CAP,TC U 0.022-25 ZF
C108	87-018-131-080		CAP,TC U 1000P-50 KB
C109	87-018-131-080		CAP,TC U 1000P-50 KB
C110	87-018-131-080		CAP,TC U 1000P-50 KB
C111	87-018-205-080		CAP,TC U 0.022-25 ZF
C113	87-018-131-080		CAP,TC U 1000P-50V KB
C114	87-018-147-080		CAP,TC-U 10P-50 J CH
C115	87-018-128-080		CAP,TC U 560P-50 KB
C116	87-010-400-040		CAP,E 0.47-50 M 11L SME
C117	87-A11-148-080		CAP TC U 0.1-50 ZF
C118	87-010-248-040		CAP,E 220-10 SME
C119	87-010-248-040		CAP,E 220-10 SME
C120	87-018-123-080		CAP,TC U 220P-50V KB
C123	87-A11-148-080		CAP TC U 0.1-50 ZF
C124	87-A11-148-080		CAP TC U 0.1-50 ZF
C125	87-010-405-040		CAP,E 10-50 M 11L SME
C126	87-A11-148-080		CAP TC U 0.1-50 ZF
C130	87-010-405-040		CAP,E 10-50 M 11L SME
C201	87-018-118-080		CAP,TC-U 82P-50 B
C202	87-018-117-080		CAP,TC-U 68P-50 SL
C205	87-018-117-080		CAP,TC-U 68P-50 SL
C208	87-018-117-080		CAP,TC-U 68P-50 SL
C209	87-018-117-080		CAP,TC-U 68P-50 SL
C210	87-018-117-080		CAP,TC-U 68P-50 SL
C211	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C212	87-010-404-040		CAP,E 4.7-50 SME
C213	87-010-404-040		CAP,E 4.7-50 SME
C216	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C701	87-010-384-040		CAP,E 100-25 SME
CN101	88-NF9-658-010		CONN,30P BLK TYK-B(P)
CN701	87-A60-673-010		CONN,9P H 2MM JMT
CN801	87-099-015-010		CONN,13P V BLK 6216
FC801	88-913-271-110		FF-CABLE,13P 1.25
FL201	8A-NFA-604-010		FL,10-BT-224GNK
L101	87-A50-050-010		COIL,CLK 4.19M(COI)
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A91-623-010		SW,RTRY EC12E2430403-25MM
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
SFR701	87-024-352-080		SFR,4.7K H EVN DJAA03

PT C.B

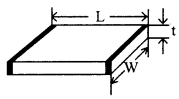
C183	87-010-387-080		CAP,E 470-25 SME
C184	87-010-403-080		CAP, ELECT 3.3-50V SME
⚠ PT1	8A-MA6-662-010		PT,AMA-6 EZ
⚠ PT181	8A-NF8-662-010		PT,SUB ANF-8 (E)
⚠ RY181	87-A90-976-010		RELAY,AC12V SDT-S-112LMR
⚠ T181	87-A60-317-010		TERMINAL, 1P MSC
⚠ T182	87-A60-317-010		TERMINAL, 1P MSC
WH181	87-A90-510-010		HLDR,WIRE 2.5-9P

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

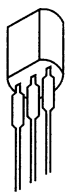
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



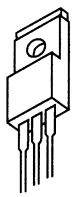
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

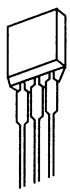
TRANSISTOR ILLUSTRATION



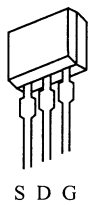
CSA952
CSC4115
KTA1266
KTC3198



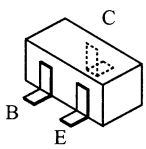
2SB1370
2SC3331



DTC114ES

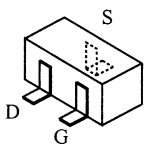


2SJ460
2SK2541

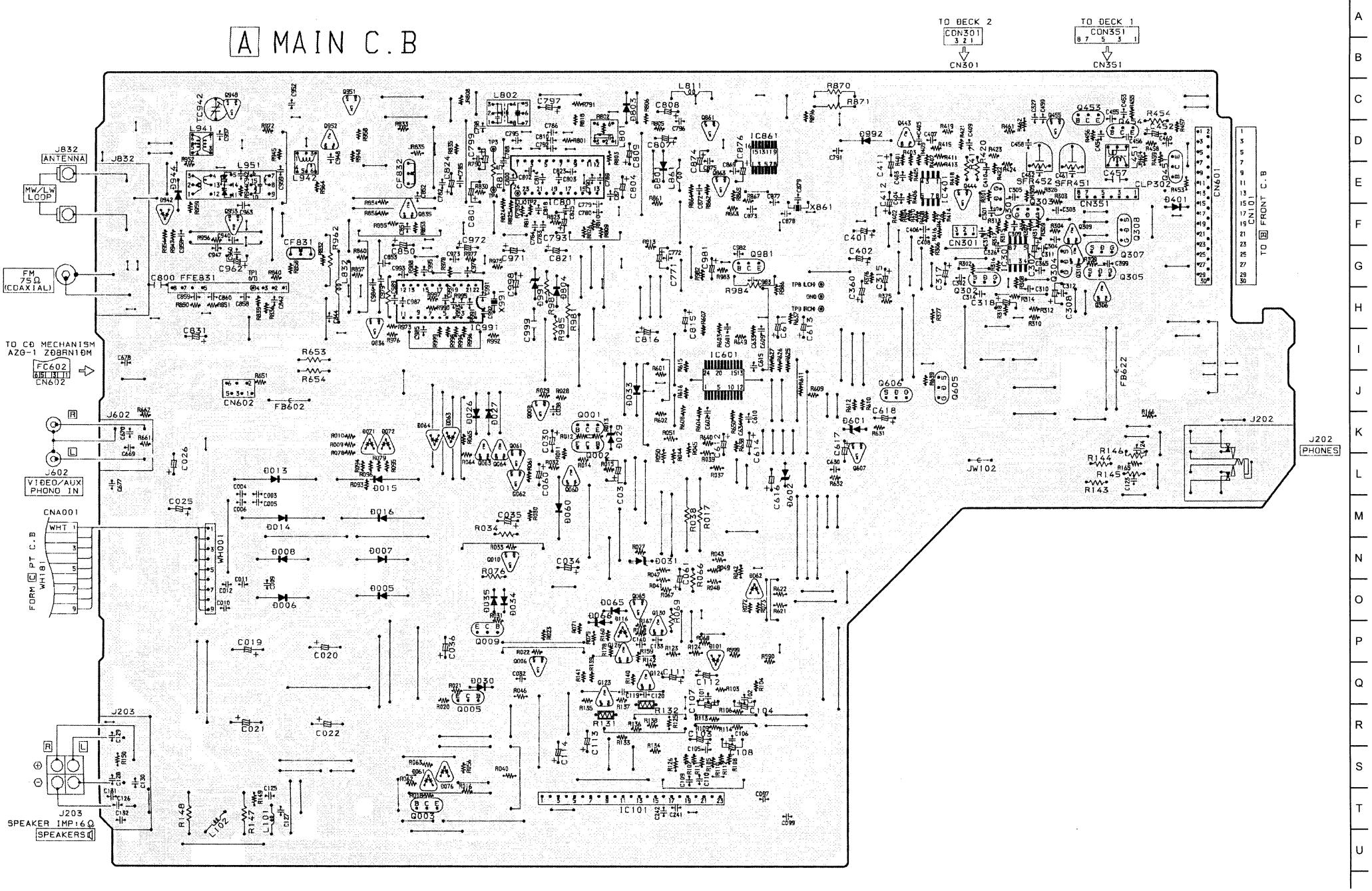


2SA1235
2SC2714
2SC3052
2SD1306
CMBT5401
CMBT5551

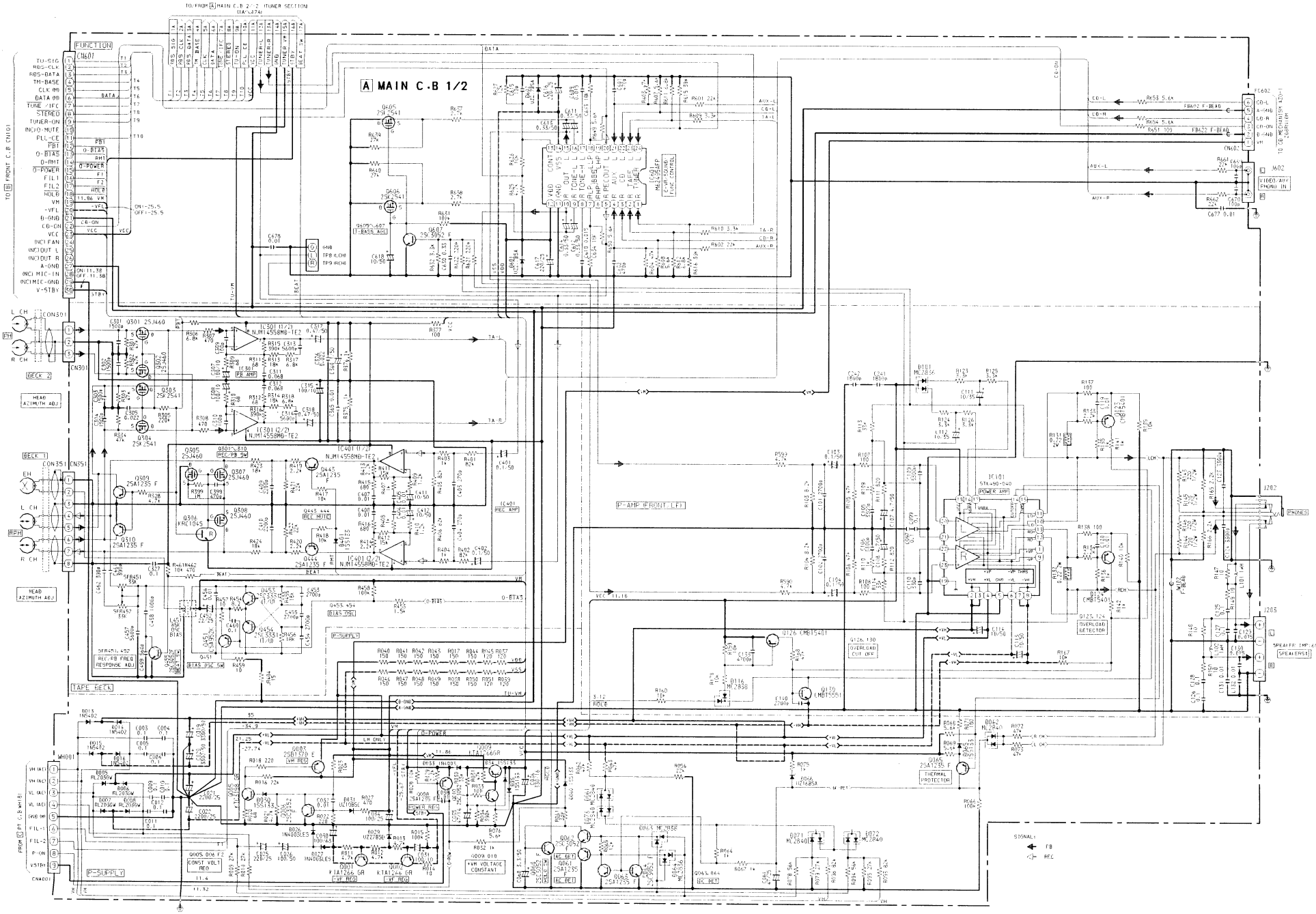
DTC114EK
KRA102
KRA107
KRC104



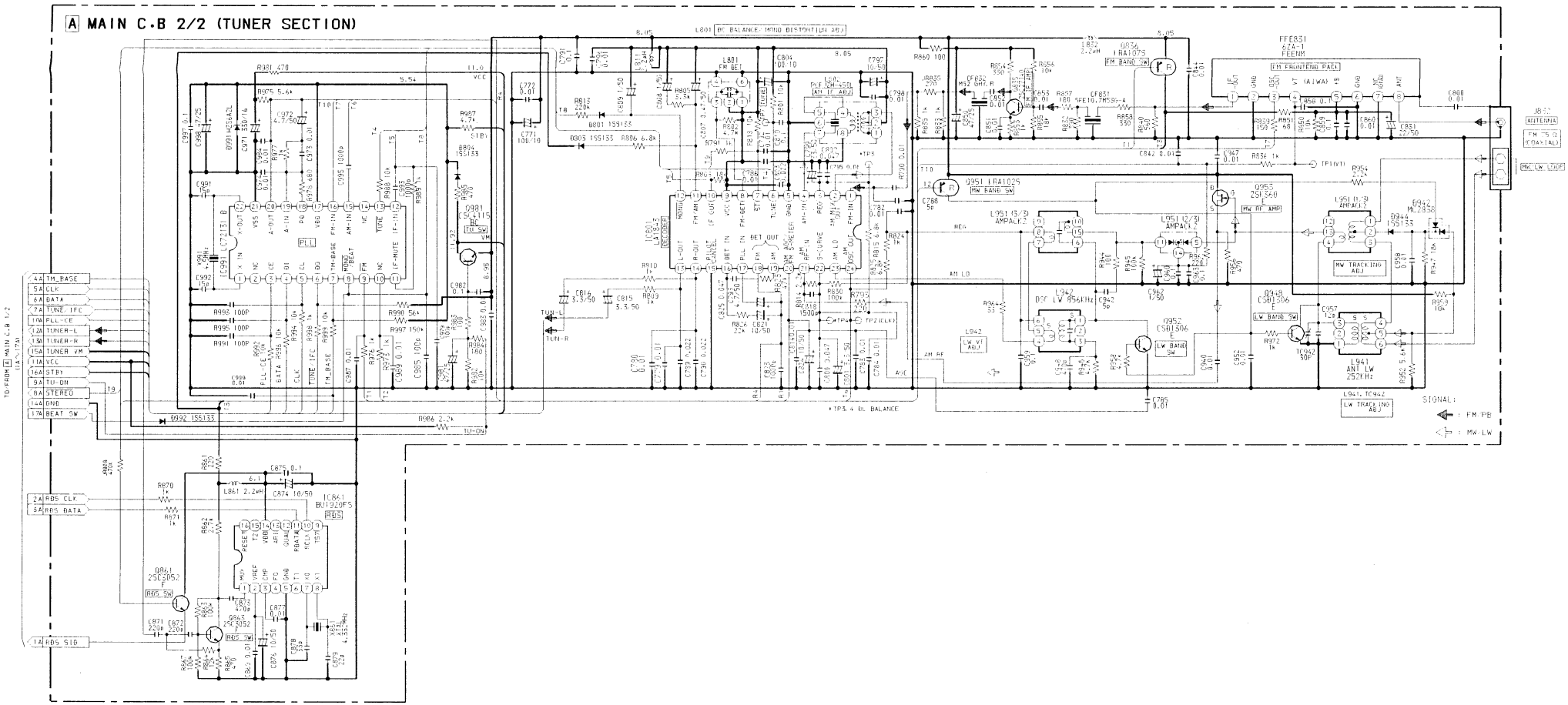
2SK360

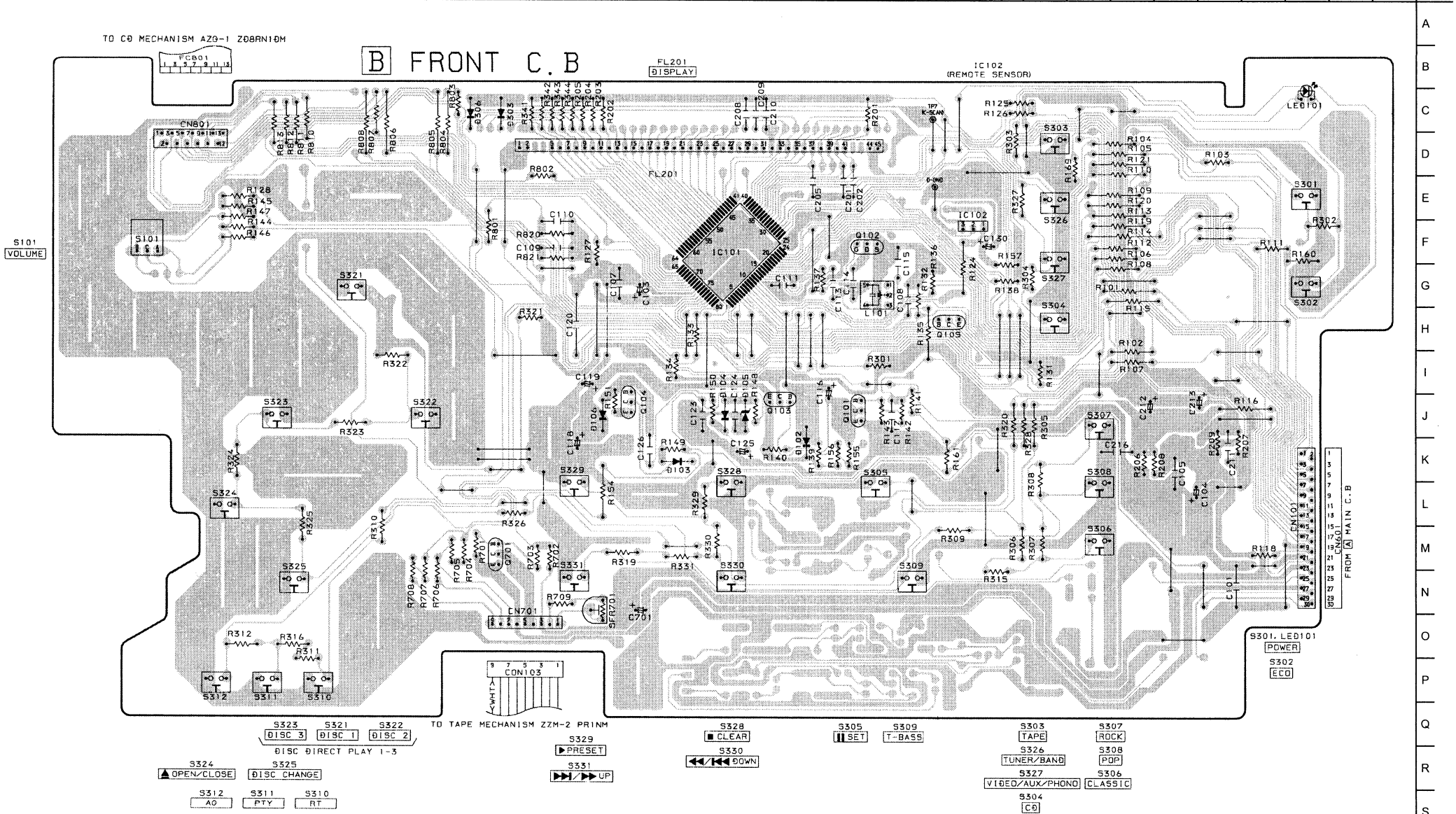

A MAIN C.B
TO DECK 2
CON301
CN301
TO DECK 1
CON351
CN351
J832
ANTENNA
MW/LW LOOP
FM 75Ω (COAXIAL)
TO CD MECHANISM AZG-1 Z08RN10M
FC602
CN602
J602
VIDEO/AUX PHONO IN
J203
SPEAKER IMP:6Ω
SPEAKERS
J202
PHONES
TO FRONT C.B
CN101
CNA001
FORM PT C.B WH181
JW102
IC101
IC601
IC861
Q307
Q305
Q308
Q303
Q304
Q453
Q606
Q605
Q607
Q602
Q603
Q604
Q401
Q981
Q992
Q984
Q001
Q002
Q003
Q005
Q009
Q010
Q030
Q031
Q034
Q035
Q061
Q062
Q063
Q064
Q071
Q072
Q076
Q079
Q080
Q116
Q130
Q131
Q132
Q133
Q134
Q135
Q136
Q137
Q138
Q139
Q140
Q141
Q142
Q143
Q144
Q145
Q146
Q147
Q148
Q149
Q150
Q151
Q152
Q153
Q154
Q155
Q156
Q157
Q158
Q159
Q160
Q161
Q162
Q163
Q164
Q165
Q166
Q167
Q168
Q169
Q170
Q171
Q172
Q173
Q174
Q175
Q176
Q177
Q178
Q179
Q180
Q181
Q182
Q183
Q184
Q185
Q186
Q187
Q188
Q189
Q190
Q191
Q192
Q193
Q194
Q195
Q196
Q197
Q198
Q199
Q200
Q201
Q202
Q203
Q204
Q205
Q206
Q207
Q208
Q209
Q210
Q211
Q212
Q213
Q214
Q215
Q216
Q217
Q218
Q219
Q220
Q221
Q222
Q223
Q224
Q225
Q226
Q227
Q228
Q229
Q230
Q231
Q232
Q233
Q234
Q235
Q236
Q237
Q238
Q239
Q240
Q241
Q242
Q243
Q244
Q245
Q246
Q247
Q248
Q249
Q250
Q251
Q252
Q253
Q254
Q255
Q256
Q257
Q258
Q259
Q260
Q261
Q262
Q263
Q264
Q265
Q266
Q267
Q268
Q269
Q270
Q271
Q272
Q273
Q274
Q275
Q276
Q277
Q278
Q279
Q280
Q281
Q282
Q283
Q284
Q285
Q286
Q287
Q288
Q289
Q290
Q291
Q292
Q293
Q294
Q295
Q296
Q297
Q298
Q299
Q300
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q311
Q312
Q313
Q314
Q315
Q316
Q317
Q318
Q319
Q320
Q321
Q322
Q323
Q324
Q325
Q326
Q327
Q328
Q329
Q330
Q331
Q332
Q333
Q334
Q335
Q336
Q337
Q338
Q339
Q340
Q341
Q342
Q343
Q344
Q345
Q346
Q347
Q348
Q349
Q350
Q351
Q352
Q353
Q354
Q355
Q356
Q357
Q358
Q359
Q360
Q361
Q362
Q363
Q364
Q365
Q366
Q367
Q368
Q369
Q370
Q371
Q372
Q373
Q374
Q375
Q376
Q377
Q378
Q379
Q380
Q381
Q382
Q383
Q384
Q385
Q386
Q387
Q388
Q389
Q390
Q391
Q392
Q393
Q394
Q395
Q396
Q397
Q398
Q399
Q400
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
Q409
Q410
Q411
Q412
Q413
Q414
Q415
Q416
Q417
Q418
Q419
Q420
Q421
Q422
Q423
Q424
Q425
Q426
Q427
Q428
Q429
Q430
Q431
Q432
Q433
Q434
Q435
Q436
Q437
Q438
Q439
Q440
Q441
Q442
Q443
Q444
Q445
Q446
Q447
Q448
Q449
Q450
Q451
Q452
Q453
Q454
Q455
Q456
Q457
Q458
Q459
Q460
Q461
Q462
Q463
Q464
Q465
Q466
Q467
Q468
Q469
Q470
Q471
Q472
Q473
Q474
Q475
Q476
Q477
Q478
Q479
Q480
Q481
Q482
Q483
Q484
Q485
Q486
Q487
Q488
Q489
Q490
Q491
Q492
Q493
Q494
Q495
Q496
Q497
Q498
Q499
Q500
Q501
Q502
Q503
Q504
Q505
Q506
Q507
Q508
Q509
Q510
Q511
Q512
Q513
Q514
Q515
Q516
Q517
Q518
Q519
Q520
Q521
Q522
Q523
Q524
Q525
Q526
Q527
Q528
Q529
Q530
Q531
Q532
Q533
Q534
Q535
Q536
Q537
Q538
Q539
Q540
Q541
Q542
Q543
Q544
Q545
Q546
Q547
Q548
Q549
Q550
Q551
Q552
Q553
Q554
Q555
Q556
Q557
Q558
Q559
Q560
Q561
Q562
Q563
Q564
Q565
Q566
Q567
Q568
Q569
Q570
Q571
Q572
Q573
Q574
Q575
Q576
Q577
Q578
Q579
Q580
Q581
Q582
Q583
Q584
Q585
Q586
Q587
Q588
Q589
Q590
Q591
Q592
Q593
Q594
Q595
Q596
Q597
Q598
Q599
Q600
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
Q609
Q610
Q611
Q612
Q613
Q614
Q615
Q616
Q617
Q618
Q619
Q620
Q621
Q622
Q623
Q624
Q625
Q626
Q627
Q628
Q629
Q630
Q631
Q632
Q633
Q634
Q635
Q636
Q637
Q638
Q639
Q640
Q641
Q642
Q643
Q644
Q645
Q646
Q647
Q648
Q649
Q650
Q651
Q652
Q653
Q654
Q655
Q656
Q657
Q658
Q659
Q660
Q661
Q662
Q663
Q664
Q665
Q666
Q667
Q668
Q669
Q670
Q671
Q672
Q673
Q674
Q675
Q676
Q677
Q678
Q679
Q680
Q681
Q682
Q683
Q684
Q685
Q686
Q687
Q688
Q689
Q690
Q691
Q692
Q693
Q694
Q695
Q696
Q697
Q698
Q699
Q700
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q711
Q712
Q713
Q714
Q715
Q716
Q717
Q718
Q719
Q720
Q721
Q722
Q723
Q724
Q725
Q726
Q727
Q728
Q729
Q730
Q731
Q732
Q733
Q734
Q735
Q736
Q737
Q738
Q739
Q740
Q741
Q742
Q743
Q744
Q745
Q746
Q747
Q748
Q749
Q750
Q751
Q752
Q753
Q754
Q755
Q756
Q757
Q758
Q759
Q760
Q761
Q762
Q763
Q764
Q765
Q766
Q767
Q768
Q769
Q770
Q771
Q772
Q773
Q774
Q775
Q776
Q777
Q778
Q779
Q780
Q781
Q782
Q783
Q784
Q785
Q786
Q787
Q788
Q789
Q790
Q791
Q792
Q793
Q794
Q795
Q796
Q797
Q798
Q799
Q800
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q810
Q811
Q812
Q813
Q814
Q815
Q816
Q817
Q818
Q819
Q820
Q821
Q822
Q823
Q824
Q825
Q826
Q827
Q828
Q829
Q830
Q831
Q832
Q833
Q834
Q835
Q836
Q837
Q838
Q839
Q840
Q841
Q842
Q843
Q844
Q845
Q846
Q847
Q848
Q849
Q850
Q851
Q852
Q853
Q854
Q855
Q856
Q857
Q858
Q859
Q860
Q861
Q862
Q863
Q864
Q865
Q866
Q867
Q868
Q869
Q870
Q871
Q872
Q873
Q874
Q875
Q876
Q877
Q878
Q879
Q880
Q881
Q882
Q883
Q884
Q885
Q886
Q887
Q888
Q889
Q890
Q891
Q892
Q893
Q894
Q895
Q896
Q897
Q898
Q899
Q900
Q901
Q902
Q903
Q904
Q905
Q906
Q907
Q908
Q909
Q910
Q911
Q912
Q913
Q914
Q915
Q916
Q917
Q918
Q919
Q920
Q921
Q922
Q923
Q924
Q925
Q926
Q927
Q928
Q929
Q930
Q931
Q932
Q933
Q934
Q935
Q936
Q937
Q938
Q939
Q940
Q941
Q942
Q943
Q944
Q945
Q946
Q947
Q948
Q949
Q950
Q951
Q952
Q953
Q954
Q955
Q956
Q957
Q958
Q959
Q960
Q961
Q962
Q963
Q964
Q965
Q966
Q967
Q968
Q969
Q970
Q971
Q972
Q973
Q974
Q975
Q976
Q977
Q978
Q979
Q980
Q981
Q982
Q983
Q984
Q985
Q986
Q987
Q988
Q989
Q990
Q991
Q992
Q993
Q994
Q995
Q996
Q997
Q998
Q999
Q1000

SCHEMATIC DIAGRAM - 1 (MAIN 1 / 2)

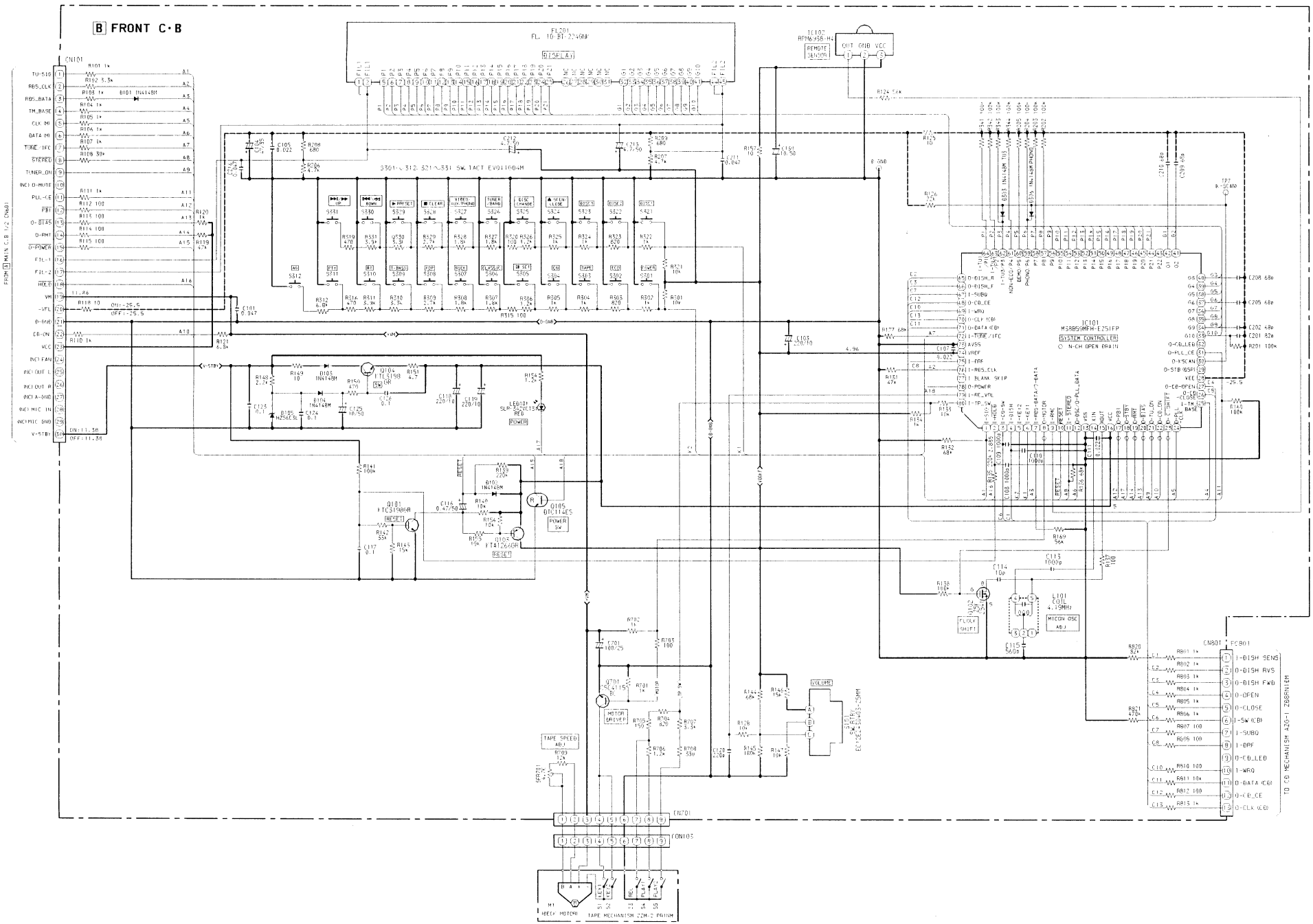


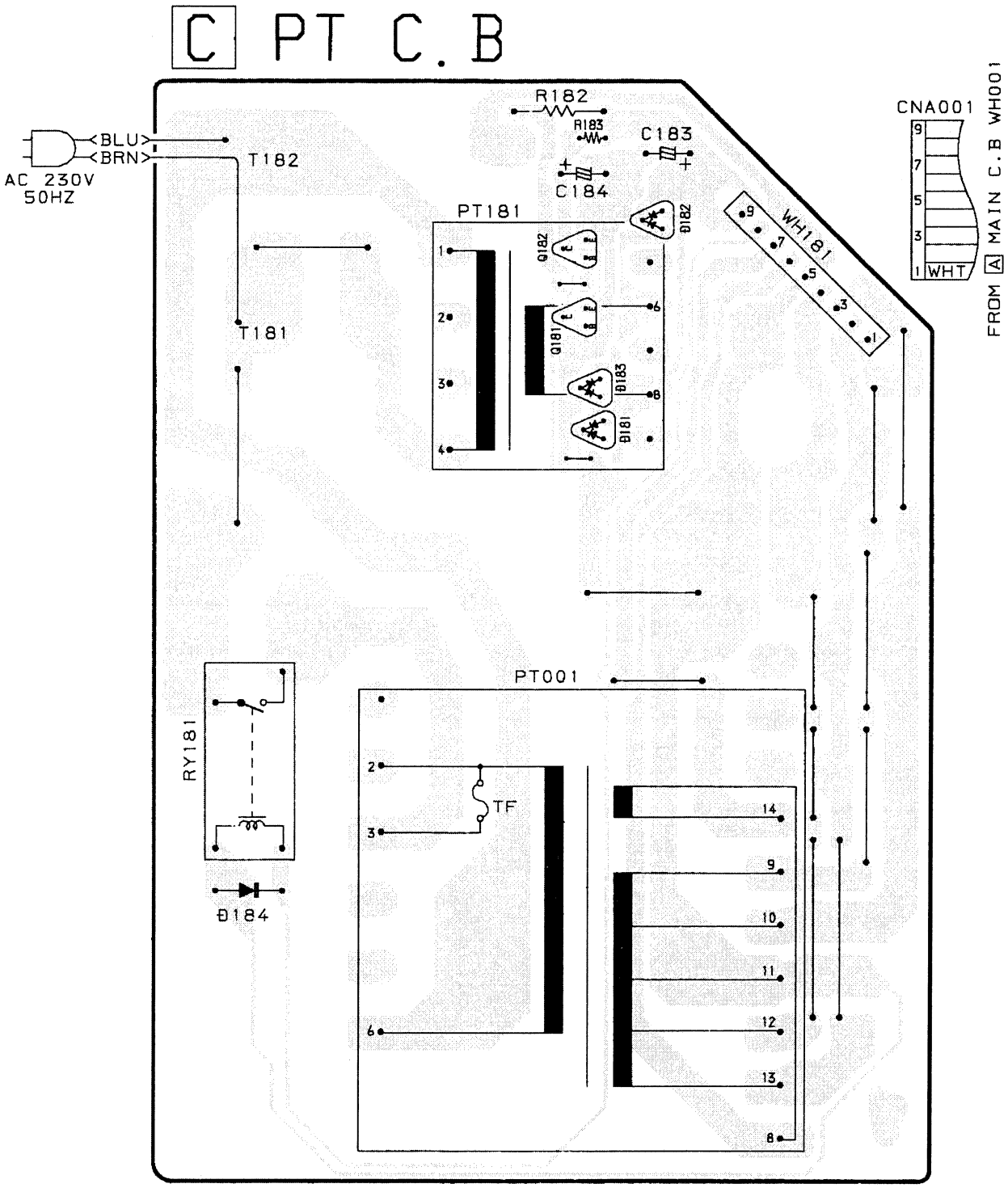
SCHEMATIC DIAGRAM - 2 (MAIN 2 / 2)



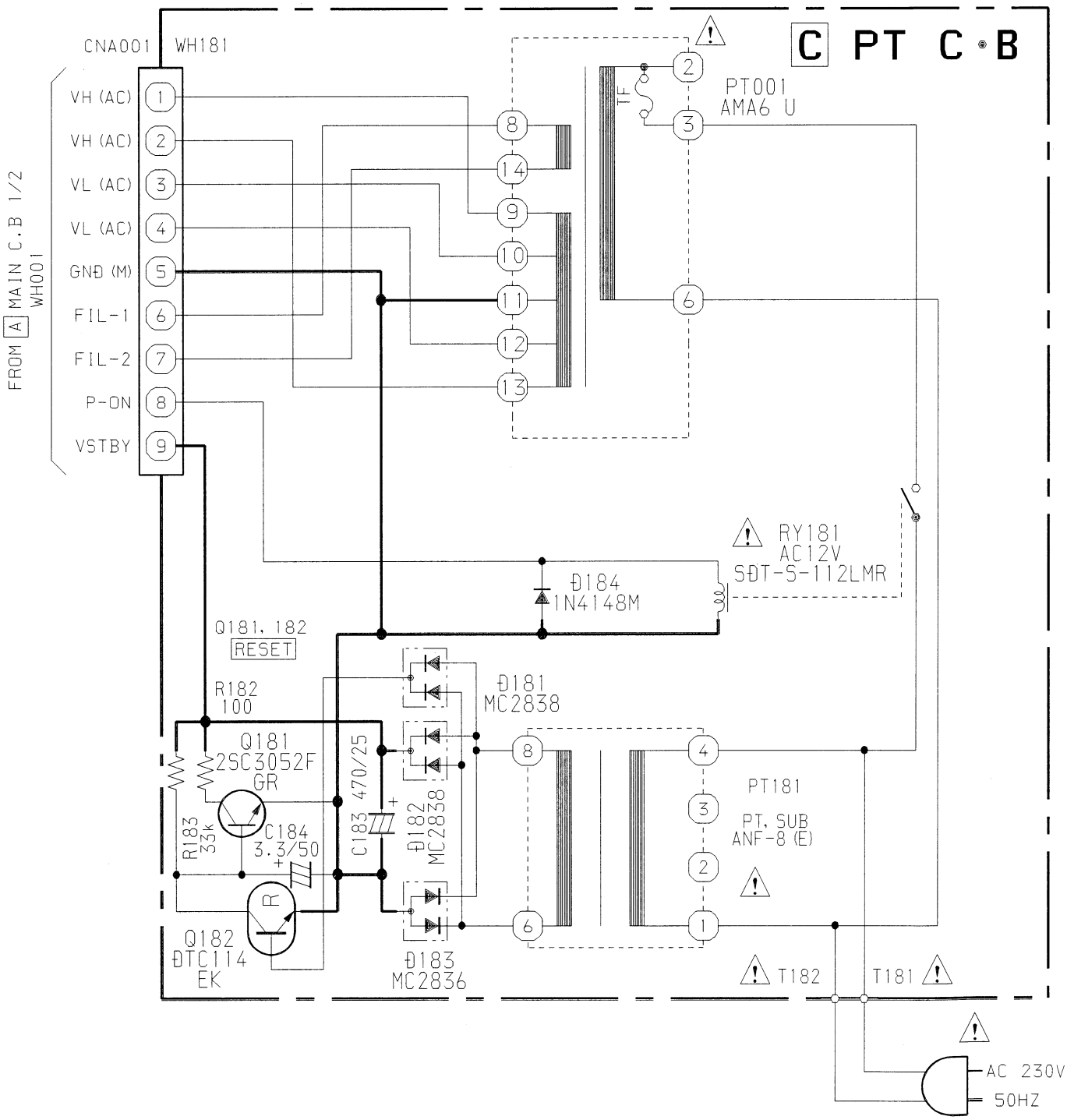

B FRONT C.B
TO CD MECHANISM AZ9-1 ZD8RN1DM
FCB01
CNB01
FL201
DISPLAY
IC102
(REMOTE SENSOR)
IC101
LED101
S101
VOLUME
S301
POWER
S302
ECO
S303
TAPE
S304
CD
S305
SET
S306
CLASSIC
S307
ROCK
S308
POP
S309
T-BASS
S310
RT
S311
PTY
S312
AO
S321
DISC 1
S322
DISC 2
S323
DISC 3
DISC DIRECT PLAY 1-3
S324
OPEN/CLOSE
S325
DISC CHANGE
S326
TUNER/BAND
S327
VIDEO/AUX/PHONO
S328
CLEAR
S329
PRESET
S330
DOWN
S331
UP
CN701
CON103
TO TAPE MECHANISM ZZM-2 PRINM
CN101
FROM A MAIN C.B

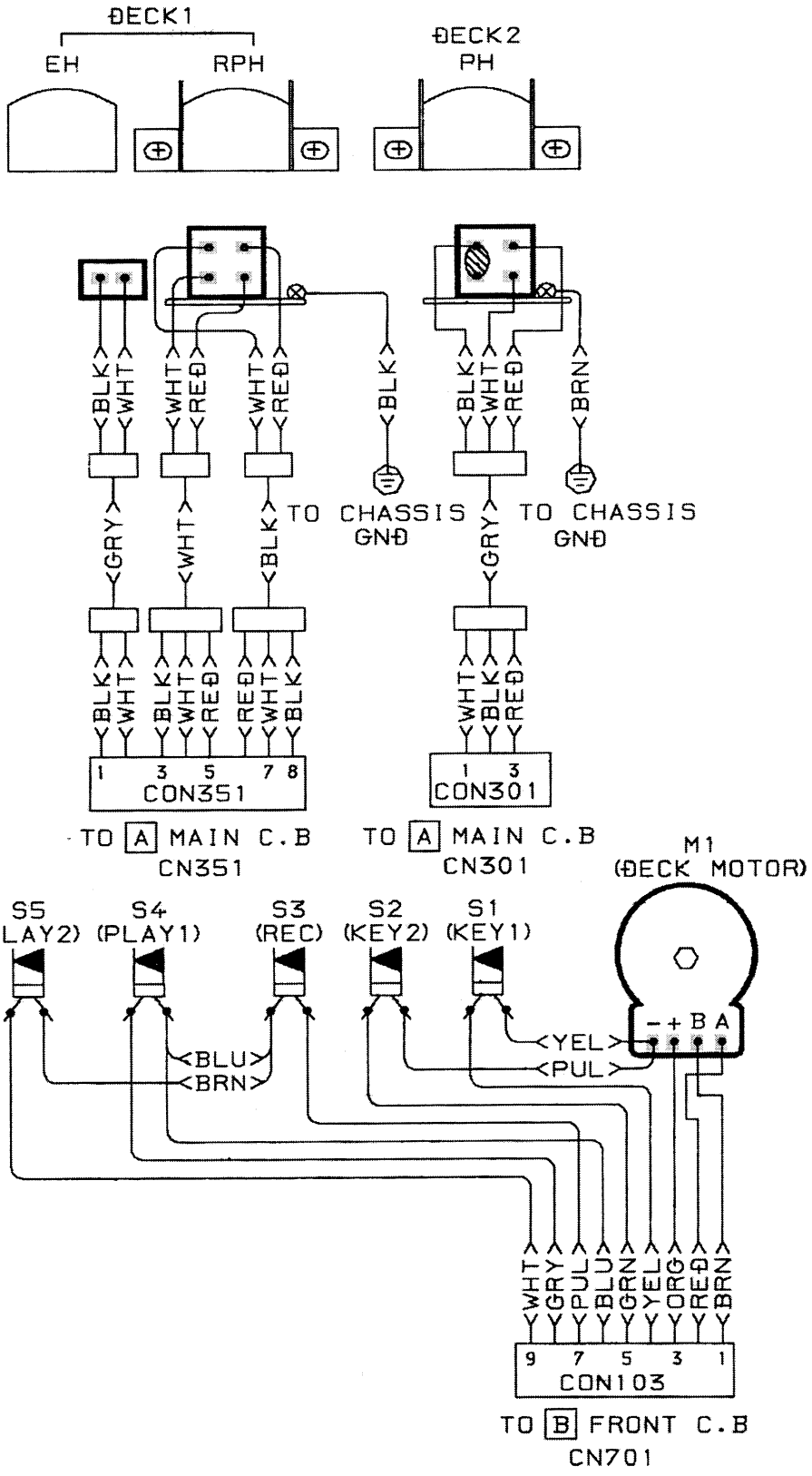
SCHEMATIC DIAGRAM - 3 (FRONT)




C PT C.B
AC 230V
50HZ
BLU
BRN
T182
T181
R182
R183
C183
C184
PT181
Q182
Q181
Đ182
Đ183
Đ181
WH181
CNA001
9
7
5
3
1
WHT
FROM A MAIN C.B WH001
RY181
Đ184
PT001
TF
2
3
6
14
9
10
11
12
13
8

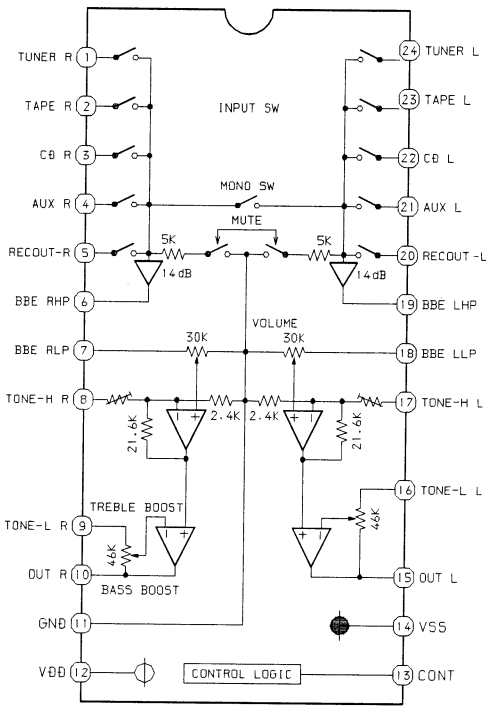
SCHEMATIC DIAGRAM - 4 (PT)



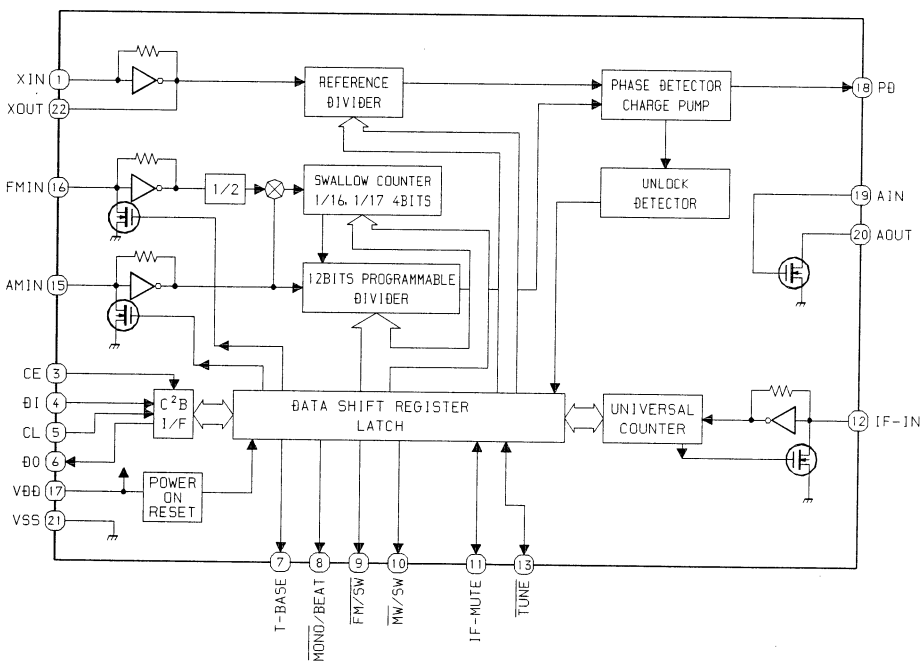

DECK1
EH
RPH
DECK2
PH
BLK
WHT
WHT
RED
WHT
RED
BLK
BLK
WHT
RED
BRN
GRY
WHT
BLK
TO CHASSIS GND
TO CHASSIS GND
GRY
BLK
WHT
BLK
WHT
RED
RED
WHT
BLK
WHT
BLK
RED
1 3 5 7 8
CON351
1 3
CON301
TO A MAIN C.B CN351
TO A MAIN C.B CN301
M1
(DECK MOTOR)
S5 (PLAY2)
S4 (PLAY1)
S3 (REC)
S2 (KEY2)
S1 (KEY1)
- + B A
YEL
PUL
BLU
BRN
WHT
GRY
PUL
BLU
GRN
YEL
ORG
RED
BRN
9 7 5 3 1
CON103
TO B FRONT C.B CN701

IC BLOCK DIAGRAM

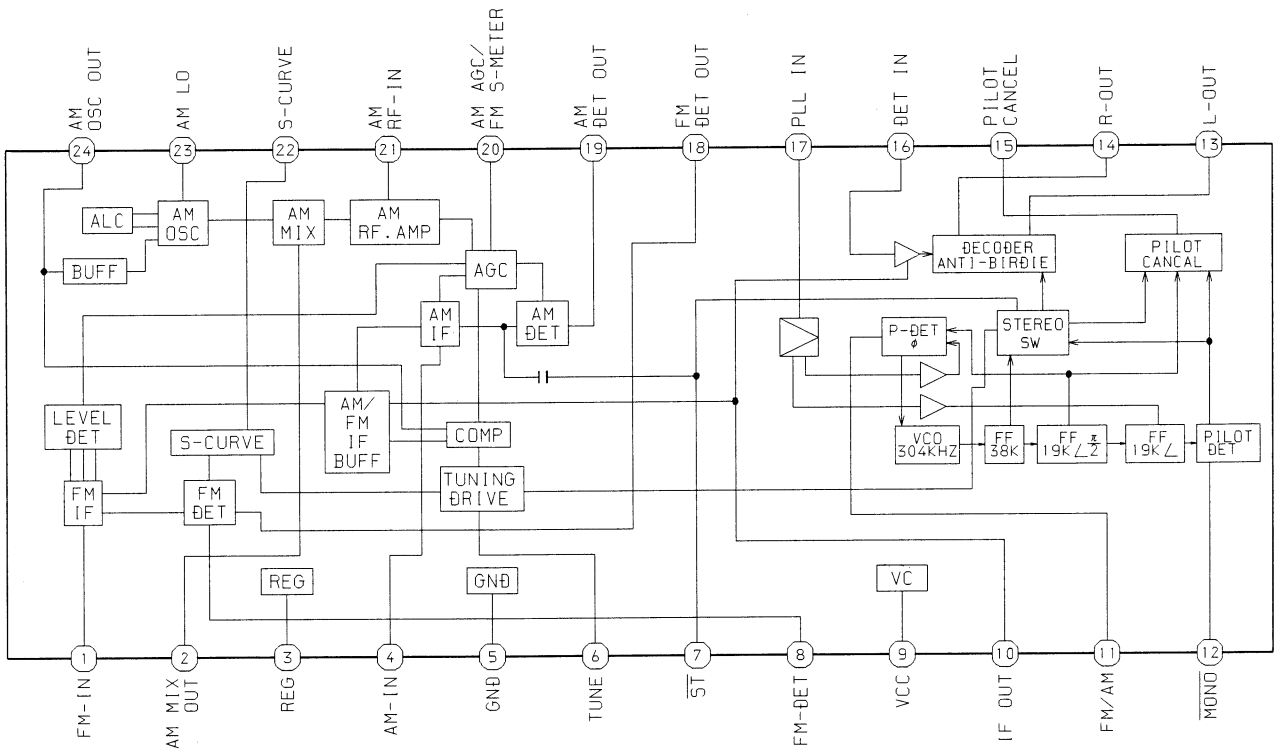
IC, M62495AFP



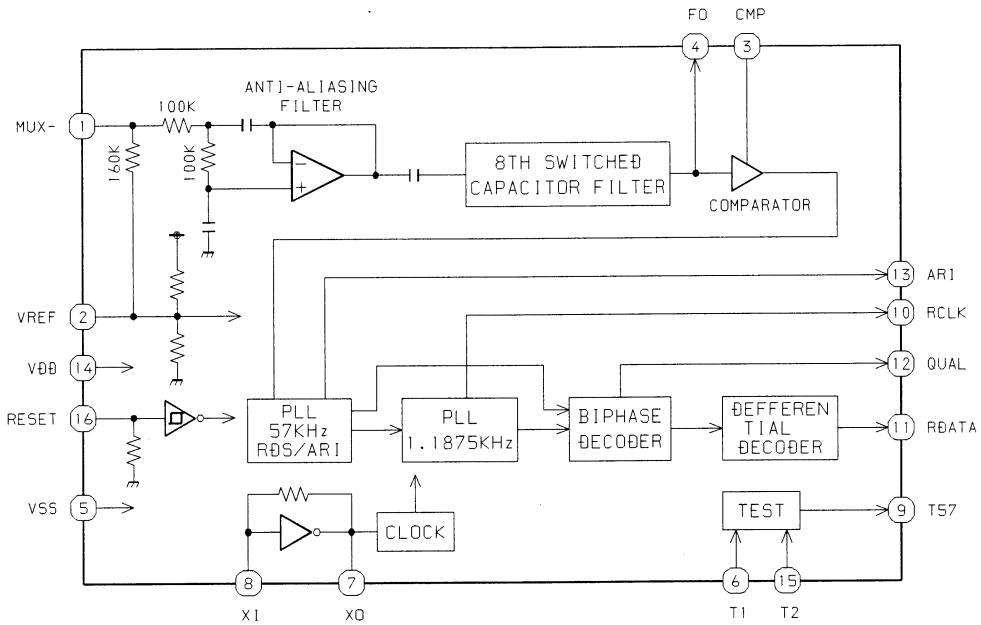
IC, LC72131D



IC, LA1843



IC, BU1920FS



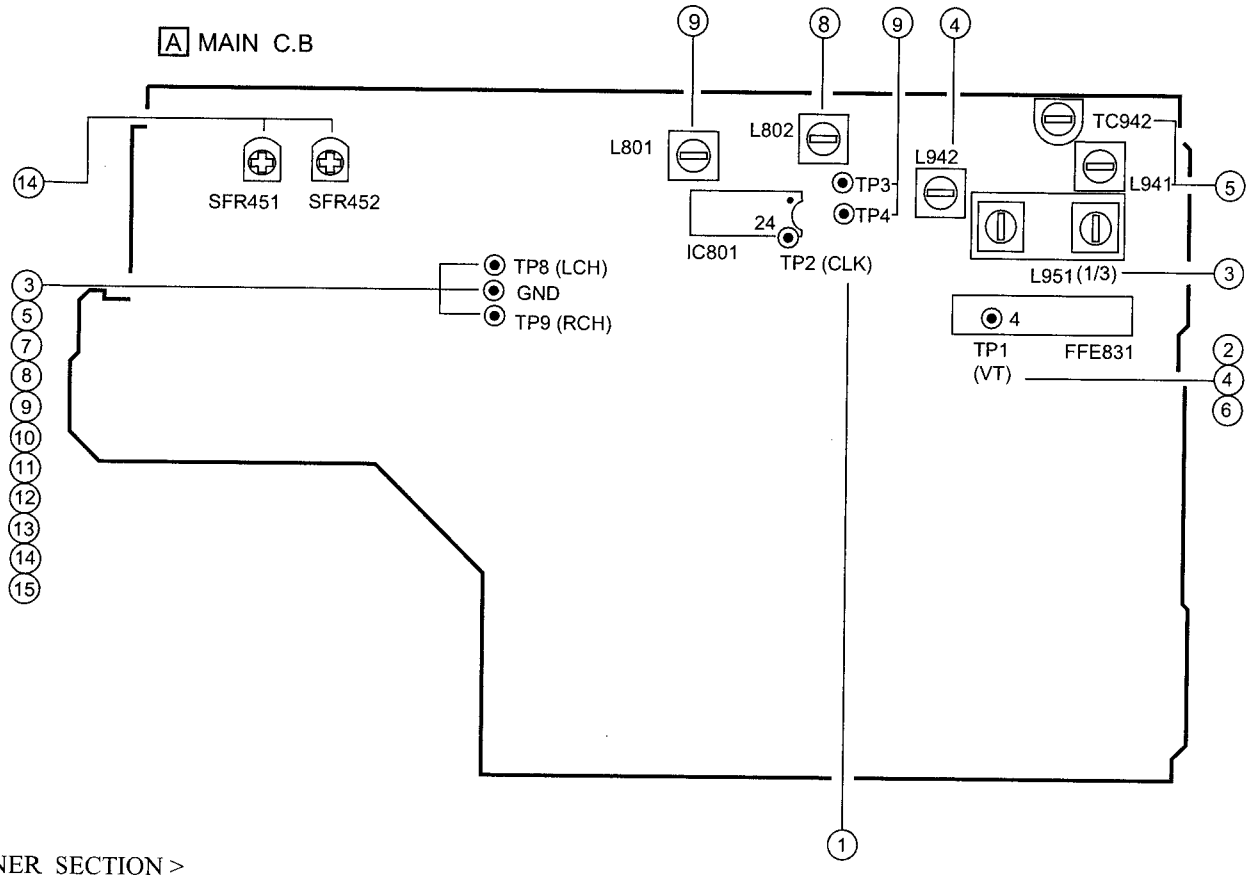
IC DESCRIPTION

IC, M38B59MFH-E251FP

Pin No.	Pin Name	I/O	Description
1	I-SIG	I	RDS signal level A/D input.
2	I-$\overline{\text{HOLD}}$	I	Hold voltage level A/D input.
3	I-CD-SW	I	CD mecha SW A/D input.
4	I-DISH	I	CD turn-table position check A/D input.
5	I-KEY2	I	KEY2 A/D input.
6	I-KEY1	I	KEY1 A/D input.
7	I-RDS-DATA/ O-DATA	I/O	RDS data input / DSP IC data (V-CD) output.
8	O-MOTOR	O	Deck motor supply ON/OFF output.
9	I-RMC	I	System remote control signal input. ("L"=ACTIVE)
10	$\overline{\text{RESET}}$	I	System reset input. ("L"=RESET)
11	I-$\overline{\text{STEREO}}$	I	Tuner stereo input. ("L"=STEREO)
12	O-DSC/ O-PLL DATA	O	Function IC control & PLL data output.
13	VSS	-	GND.
14,15	XIN, XOUT	I/O	4.19MHz system CLK input / output.
16	VCC	-	Power supply input.
17	O-PB1	O	Deck 1/2 switch output. ("L"=PLAYBACK DECK 1)
18	O-$\overline{\text{STBY}}$	O	Standby LED ON/OFF output. ("L"=ON)
19	O-$\overline{\text{RMT}}$	O	REC mute output. ("H"=MUTE)
20	O-$\overline{\text{BIAS}}$	O	Record bias ON/OFF output. ("L"=ON)
21	O-TU-ON	O	Tuner supply ON/OFF output. ("H"=ON)
22	O-CD-ON	O	CD supply ON/OFF output. ("H"= ON)
23	O-$\overline{\text{C.SHIFT}}$	O	MICON clock shift output. ("L"=SHIFT)
24	O-PLL-CLK	O	PLL IC CLK output.
25	I-TM-BASE	I	8 Hz time base input.
26	O-CD-CLOSE	O	CD door close output.
27	O-CD-OPEN	O	CD door open output.
28	VEE	-	Power supply input for FL display.
29	O-STB(DSP)	O	DSP IC strobe output. (Not used)
30	O-KSCAN	O	Initial key scan output.
31	O-PLL-CE	O	CD PLL IC chip enable output.
32	O-CD-LED	O	CD flash window LED output. (Not used)
33~42	G10~G1	O	FL grid output (G10~G1).
43	P22	O	FL segment output (P22). (Not used)
44~58	P21~P7	O	FL segment output (P21~P7).
59	PHONO/P6	I/O	PHONO diode input / FL segment output (P6).
60	DEMO/P5	I/O	CASINO DEMO diode input (Not used) / FL segment output (P5).
61	NON-ECO/P4	I/O	ECO OFF diode input (Not used) / FL segment output (P4).
62	I-TU3/P3	I/O	TU 3 diode input / FL segment output (P3).
63	I-TU2/P2	I/O	TU 2 diode input (Not used) / FL segment output (P2).
64	I-TU1/P1	I/O	TU 1 diode input (Not used) / FL segment output (P1).

Pin No.	Pin Name	I/O	Description
65	O-DISH-R	O	CD turn-table reverse turn output.
66	O-DISH-F	O	CD turn-table forward turn output.
67	I-SUBQ	I	Sub code-Q data input.
68	O-CD-CE	O	CD DSP chip enable output.
69	I-WRQ	I	CD WRQ input.
70	O-CLK (CD)	O	CD control clock output .
71	O-DATA (CD)	O	CD control data output.
72	I-$\overline{\text{TUNE}}$/IFC	I	Tuner SD input / IF count input.
73	AVSS	-	GND.
74	VREF	-	Reference voltage.
75	I-DRF	I	CD DRF input.
76	I-RDS-CLK	I	RDS clock input.
77	I-BLANK SKIP	I	Signal level AD input for CD blank skip only. (Not used)
78	O-POWER	O	SYSTEM Power ON/OFF output. ("H"=ON)
79	I-RE-VOL	I	Rotary encoder A/D input.
80	I-TP-SW	I	Deck mecha SW A/D input.

ADJUSTMENT <TUNER / DECK / FRONT>



< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and MW 531kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (531kHz).

3. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L951 (1/3) 1000kHz
   Method : Set to MW 999kHz and adjust L951 (1/3) so that the test point is maximum.

4. LW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.

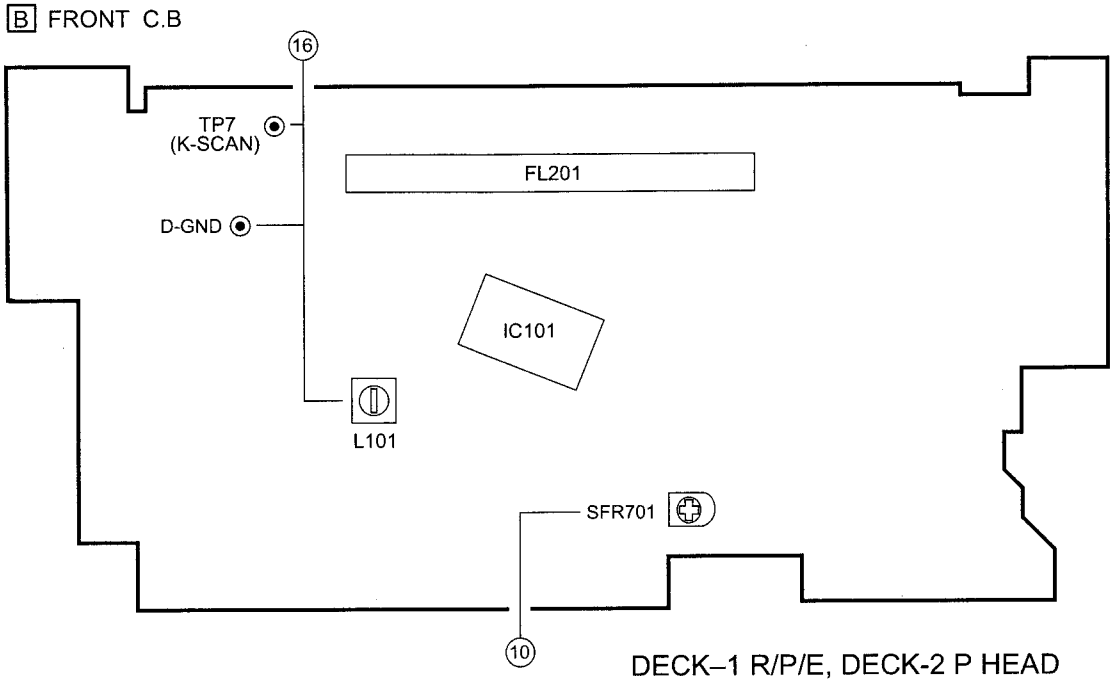
5. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to maximum by L941. Then the level at 290kHz is adjusted to maximum by TC942.

6. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.
   Set to FM 87.5MHz and check that the test point is more than 0.5V.

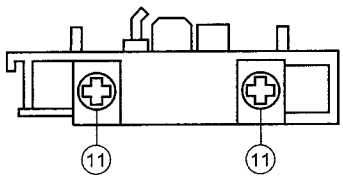
7. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13.0dBμV.

8. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L802 ..... 450kHz

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   TP8 (Lch), TP9 (Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 300mV. Next, check that the distortion is minimum.



DECK–1 R/P/E, DECK-2 P HEAD



< DECK SECTION >

10. Tape Speed Adjustment (DECK 1)
Settings : • Test tape : TTA–100
• Test point : TP8 (Lch), TP9 (Rch)
• Adjustment location : SFR701
Method : Play back the test tape and adjust SFR701 so that the frequency counter reads 3000Hz ± 5Hz.

11. Head Azimuth Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–330
• Test point : TP8 (Lch), TP9 (Rch)
• Adjustment location : Head azimuth adjustment screw
Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

12. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–330
• Test point :TP8 (Lch), TP9 (Rch)
Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

13. PB Sensitivity Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–200
• Test point : TP8 (Lch), TP9 (Rch)
Method : Play back the test tape and check that the output level of the test point is 140mV ± 3dB.

14. REC/PB Frequency Response Adjustment (DECK 1)
Settings : • Test tape : TTA–602
• Test point : TP8 (Lch), TP9 (Rch)
• Input signal : 1kHz / 8kHz (LINE IN)
• Adjustment location : SFR451 (Lch)
SFR452 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU (9~11mV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

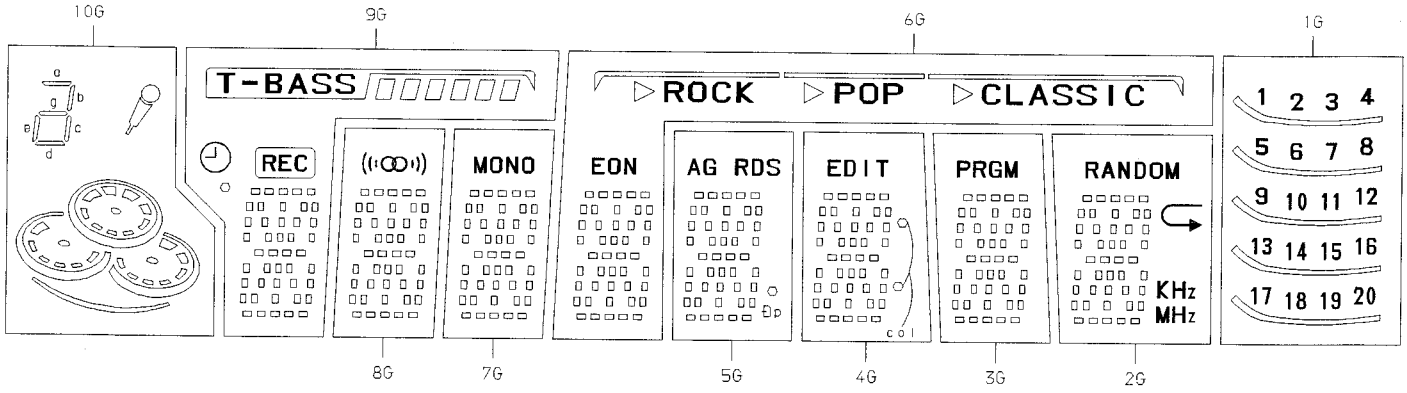
15. REC/PB Sensitivity Check (DECK 1)
Settings : • Test tape : TTA–602
• Test point : TP8 (Lch), TP9 (Rch)
• Input signal : 1kHz (LINE IN)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (90~110mV). Record and play back the 1kHz signals and check that the output is 0dB ± 3.0dB.

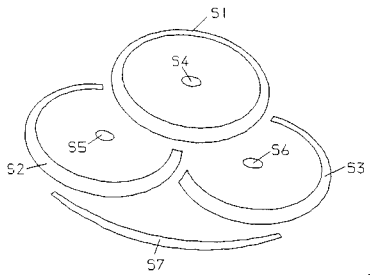
< FRONT SECTION >

16. MICON OSC Adjustment
Settings : • Test point : TP7 (K-SCAN) and D-GND
• Adjustment location : L101
Method : Pull out AC plug, then insert AC plug again with pressing of TUNER function key and POWER key. Adjust L101 so that the frequency across the test point is 58.3525Hz ± 0.058Hz or 17.1372ms ± 0.017ms.

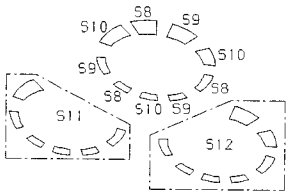
FL (10-BT-224GNK) GRID ASSIGNMENT AND ANODE CONNECTION

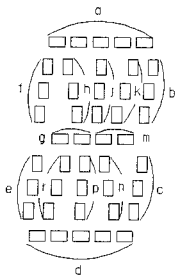
GRID ASSIGNMENT



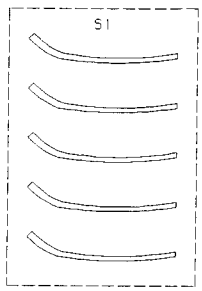


[10G]

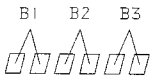




[9G~2G]



[1G]



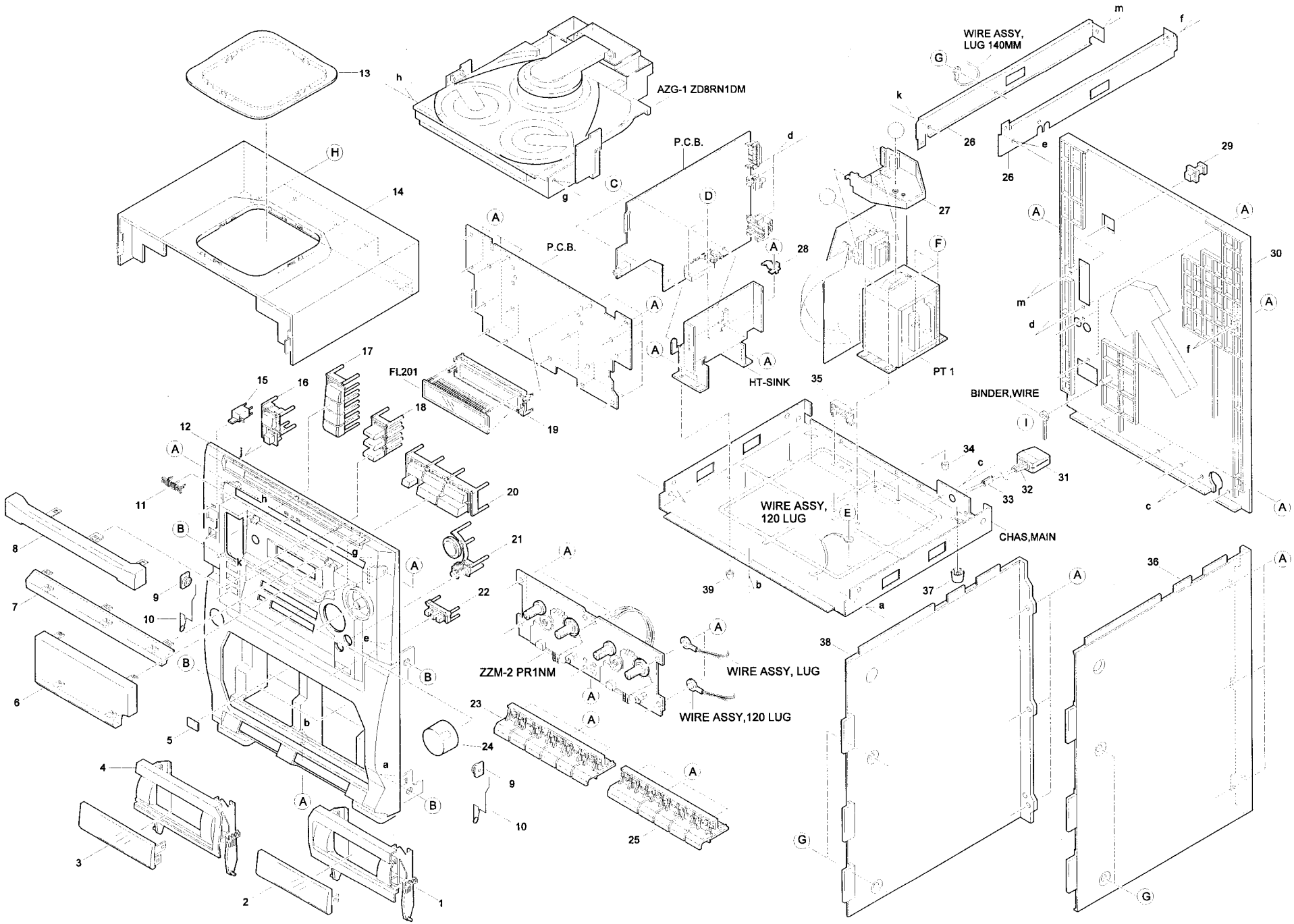
[9G]

[6G]

ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	–	d	d	d	d	d	d	d	d	**20**
P2	S7	n	n	n	n	n	n	n	n	**19**
P3	–	p	p	p	p	p	p	p	p	**18**
P4	S11	r	r	r	r	r	r	r	r	**17**
P5	S5	e	e	e	e	e	e	e	e	**16**
P6	S2	c	c	c	c	c	c	c	c	**15**
P7	S12	g	g	g	g	g	g	g	g	**14**
P8	S6	m	m	m	m	m	m	m	m	**13**
P9	S3	f	f	f	f	f	f	f	f	**12**
P10	S10	b	b	b	b	b	b	b	b	**11**
P11	S9	k	k	k	k	k	k	k	k	**10**
P12	S8	j	j	j	j	j	j	j	j	**9**
P13	S4	h	h	h	h	h	h	h	h	**8**
P14	S1	a	a	a	a	a	a	a	a	**7**
P15	–	◴	((CD))	**MONO**	**EON**	Đp	col(DOWN)	–	**MHz**	**6**
P16	–	REC	–	–	–	**AG**	col (UP)	–	**KHz**	**5**
P17	𝒫	○	–	–	▷ (CLASSIC)	**RDS**	**EDIT**	**PRGM**	↻	**4**
P18	a, d, g	T-BASS	–	–	▷ (ROCK)	–	–	–	–	**3**
P19	b	B1	–	–	▷ (POP)	–	–	–	–	**2**
P20	c	B2	–	–	S1	–	–	–	**RANDOM**	**1**
P21	e	B3	–	–	–	–	–	–	–	S1

MECHANICAL EXPLODED VIEW 1 / 1



MECHANICAL PARTS LIST 1 / 1

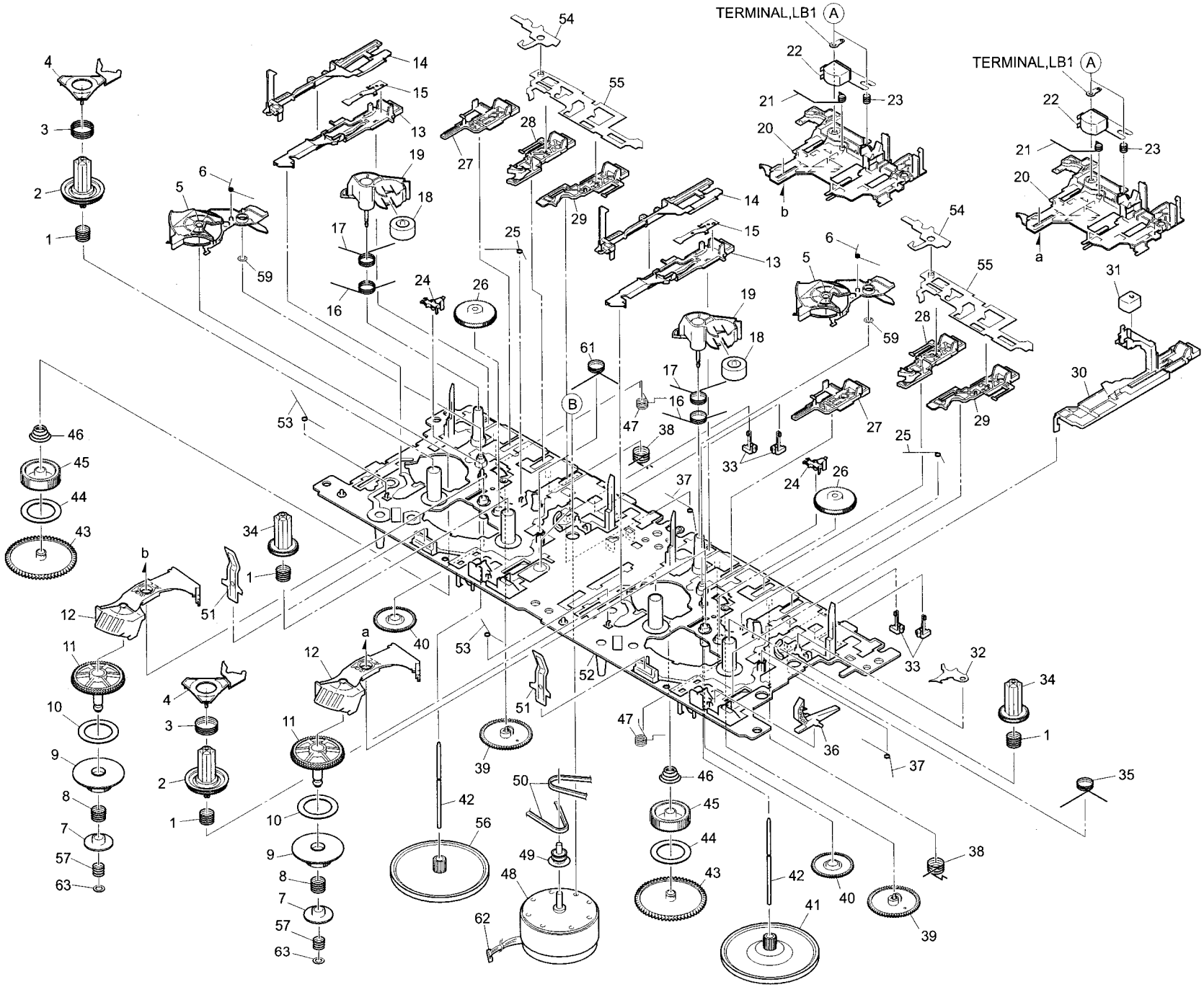
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-007-010		BOX,CASS R
2	8A-MA6-017-010		WINDOW,CASS R
3	8A-MA6-016-010		WINDOW,CASS L
4	8A-MA6-006-010		BOX,CASS L
5	81-532-080-010		LABEL, CASS. COMPT
6	8A-MA6-013-010		WINDOW,DISP EZ
7	8A-MA6-014-010		WINDOW,CD
8	8A-MA6-011-010		PANEL,CD
9	86-NFZ-231-010		DMPR,70
10	8Z-CL8-209-010		SPR-T,CASS
11	87-B00-002-010		BADGE,AIWA 30 ABS SIL
12	8A-MA6-002-010		CABI,FR EZ
13	8A-MA3-057-010		WINDOW,TOP
14	8A-MA6-018-110		CABI,TOP
15	8A-MA6-032-010		REFLECTOR,POWER
16	8A-MA6-031-010		KEY,POWER
17	8A-MA6-033-010		KEY,FUNCTION
18	8A-MA6-034-110		KEY,GEQ
19	82-NF7-210-110		GUIDE,FL (*)
20	8A-MA6-035-010		KEY,PLAY
21	8A-MA6-036-010		KEY,CD
22	8A-MA6-038-010		KEY,RDS
23	8A-MA6-041-010		KEY,CASS L
24	8A-MA6-039-010		KNOB,RTRY VOL
25	8A-MA6-042-010		KEY,CASS R
26	88-MA1-208-210		JOINT,CABI
27	8A-NF9-211-010		HLDR,PWB PT HI
28	8A-NF8-205-010		HLDR,IC
29	84-ZG1-245-210		CAP,OPTICAL
30	8A-MA6-022-010		CABI,REAR EZ

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ 31	87-099-811-010		PLUG,ADPTR CONV(K)<K>
⚠ 32	87-A80-143-010		AC CORD ASSY,E BLK<K>
⚠ 32	87-A80-148-010		AC CORD ASSY,E BLK<EZ>
33	87-085-185-010		BUSHING, AC CORD (E)
34	8Z-NB8-240-010		COVER, PL
35	87-NF4-221-010		HLDR,CABLE
36	8A-MA5-046-010		PANEL,SIDE R 5
37	87-MA3-062-010		FOOT, H17
38	8A-MA5-045-010		PANEL,SIDE L 5
39	8Z-NB8-254-010		COVER, PL M3
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
C	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
D	87-067-581-010		TAPPING SCREW, BVT2+3-15
E	87-067-688-010		BVTT+3-6
F	87-067-586-010		TAPPING SCREW, BVT2+4-8
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
J	87-067-689-010		TAPPING SCREW, BVTT+3-8

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

TAPE MECHANISM EXPLODED VIEW 1 / 1



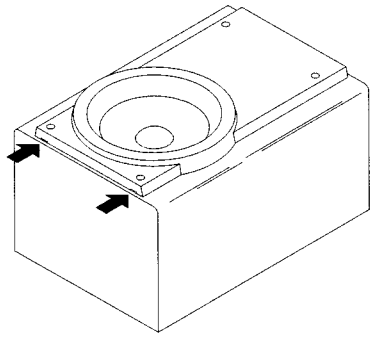
TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210		SPR-C,REEL R
2	8Z-ZM1-225-110		GEAR,REEL R
3	8Z-ZM1-253-110		SPR-C,AUTO SENSOR
4	8Z-ZM1-217-110		LEVER,AUTO SENSOR
5	8Z-ZM1-212-110		LEVER,T-UP
6	8Z-ZM1-245-010		SPR-T,AUTO
7	8Z-ZM1-236-010		CLR,SLIP FF/REW
8	8Z-ZM1-252-010		SPR-C,FF/REW
9	8Z-ZM1-230-010		GEAR,SLIP FF/REW A
10	8Z-ZM1-269-010		FELT,FF/REW 2
11	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2
12	8Z-ZM1-237-010		LEVER,FF/REW 2
13	8Z-ZM1-209-210		LEVER,PAUSE
14	8Z-ZM1-218-110		LEVER,E-LOCK H
15	8Z-ZM1-256-010		SPR-P,PAUSE
16	8Z-ZM1-244-010		SPR-T,T-UP
17	8Z-ZM1-247-210		SPR-T,PINCH
18	8Z-ZM1-261-110		ROLLER ASSY,PINCH
19	8Z-ZM1-221-010		LEVER,PINCH
20	8Z-ZM1-205-210		LEVER,PLAY
21	8Z-ZM1-248-110		SPR-T,BRG
22	87-A90-403-110		HEAD,RPH MS15R
23	84-ZM2-227-310		SPR-C,AZIMUTH
24	8Z-ZM1-216-010		LEVER,AUTO
25	8Z-ZM1-246-010		SPR-T,AUTO 2
26	8Z-ZM2-214-010		GEAR,IDL REW ZZM-2
27	8Z-ZM2-212-010		LEVER,STOP ZZM-2
28	8Z-ZM1-207-010		LEVER,FF
29	8Z-ZM1-206-010		LEVER,REW
30	8Z-ZM1-210-010		LEVER,REC
31	87-A90-404-010		HEAD,EH LE15B
32	8Z-ZM2-218-010		LEVER,REC LOCK ZZM-2
33	87-A91-492-010		SW,LEAF MSW18560
34	8Z-ZM1-226-010		GEAR,REEL L
35	8Z-ZM1-241-010		SPR-T,PLAY
36	8Z-ZM1-220-110		LEVER,REC SENSOR
37	8Z-ZM1-249-010		SPR-T,FR
38	8Z-ZM1-242-110		SPR-T,FF/REW
39	8Z-ZM1-229-010		GEAR,CAM
40	8Z-ZM1-232-010		GEAR,IDL FF/REW
41	8Z-ZM1-234-010		FLY-WHL,ZZM-1
42	8Z-ZM1-267-010		SHAFT,CAPSTAN 2
43	8Z-ZM1-228-010		GEAR,SLIP T-UP B
44	8Z-ZM1-265-010		FELT,T-UP
45	8Z-ZM1-227-010		GEAR,SLIP T-UP A
46	8Z-ZM1-251-110		SPR-C,T-UP SLIP
47	8Z-ZM1-243-210		SPR-T,STOP/PAUSE
48	87-A91-532-010		MOT,MS15U2LW1A
49	8Z-ZM1-235-010		PULLEY,MOT
50	8Z-ZM2-216-010		BELT,MAIN M
51	8Z-ZM1-260-010		SPR-P,CASETTE
52	8Z-ZM2-201-010		CHAS ASSY,ZZM-2
53	8Z-ZM1-255-110		SPR-T,E-LOCK
54	8Z-ZM2-219-010		LEVER,E-OPEN ZZM-2
55	8Z-ZM1-214-110		LEVER,LOCK
56	8Z-ZM2-211-010		FLY-WHL,ZZM-2
57	8Z-ZM1-257-110		SPR-C,F/R
59	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
60	87-A91-494-010		SW,LEAF MSW17820
61	8Z-ZM1-241-010		SPR-T,PLAY
62	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
63	8Z-ZM1-275-010		W-L,1.47-4-0.25
A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110		V+2.6 ZZM-2

SPEAKER DISASSEMBLY INSTRUCTIONS

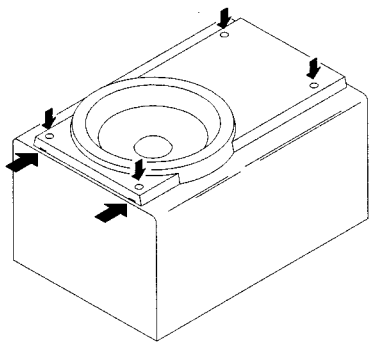
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



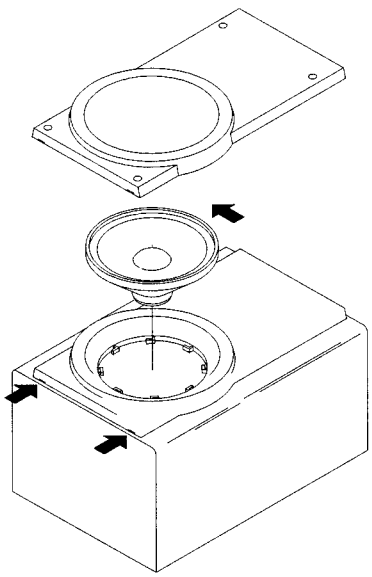
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

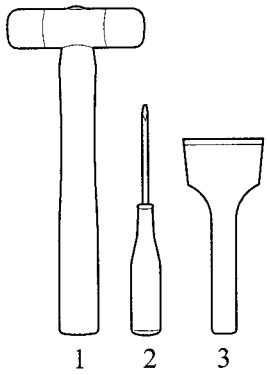


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

1 Plastic head hammer
2 flat head screwdriver
3 Cut chisel

How to Remove the PANEL, FR

1. Insert the flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

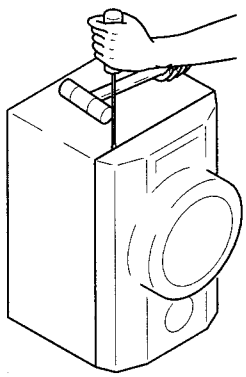


Fig-1

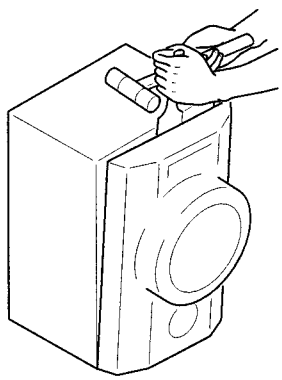


Fig-2

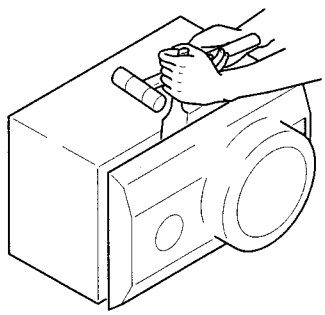


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST <SX-ZL100 (YSC)>

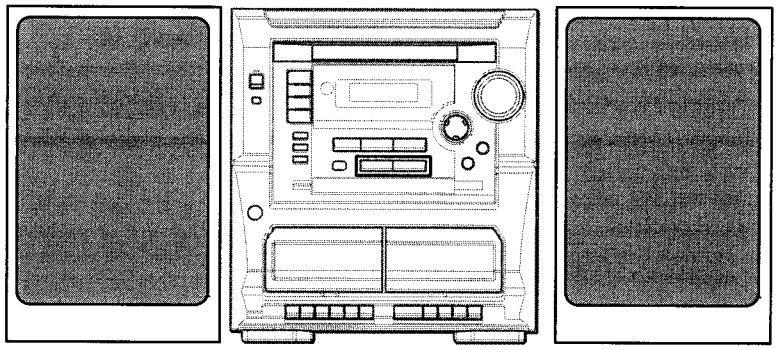
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MSG-002-010		GRILLE,FRAME ASSY
2	83-MSE-605-010		SPKR, CERAMIC
3	88-MSS-603-010		SPKR, W 130
4	88-NS5-605-010		SPKR, T 60

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-905-010		IB,K(E)M<K>
1	8A-MA6-906-010		IB,EZ(9L)M<EZ>
2	87-A90-030-010		ANT,LOOP AM-NC C
3	87-A90-118-010		ANT,WIRE FM(Z)
4	8Z-NF9-701-210		RC UNIT,ZAS02

aiwa SERVICE

Z-L99 K



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : AZG-1 ZA3RN1DM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z-L99	CX-ZL99	SX-ZL99	RC-ZAS02

- This Service Manual contains information about the difference between Z-L99 (K) and Z-L100 (K). If requiring other information, see Service Manual of Z-L100 (EZ, K), (S/M Code No. 09-004-422-5R2).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3NC).

aiwa

S/M Code No. 09-008-422-5S2

SUPPLEMENT DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated : 30 W + 30 W (1 kHz, T.H.D. 1 %, 6 ohms) Reference : 37 W + 37 W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.1 % (6 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO / AUX / PHONO IN : 500 mV
Outputs	CD DIGITAL OUT (OPTICAL) SPEAKERS : accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

<Compact disc player section>

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 16000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording / Playback / erase head x 1 Deck 2 : Playback head x 1

<Speaker system SX–ZL99>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 130 mm ($5^1/_8$ in.) cone type Tweeter: 60 mm ($2^3/_8$ in.) cone type Super tweeter: 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	260 x 496 x 220 mm ($10^1/_4$ x $19^5/_8$ x $8^3/_4$ in.)
Weight	3.7 kg (8 lbs 3 oz.)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	70 W
Dimensions of main unit (W x H x D)	360 x 393 x 342 mm ($14^1/_4$ x $15^1/_2$ x $13^1/_2$ in.)
Weight of main unit	7.7 kg (17 lbs)

Standby power consumption

If the power-economizing mode is OFF : 17 W
If the power-economizing mode is AUTO or ON : 0.9 W

• Design and specifications are subject to change without notice.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8A-NFA-616-010		C-IC,M38B59MFH-E251FP
	87-A21-396-010		IC,STK490-040
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-560-010		IC,LA1844L-A
	87-070-127-110		IC,LC72131 D
	87-A21-482-010		RPM6938-H4
	87-A20-440-040		C-IC,BU1920FS
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-026-245-080		TR,DTC114ES
	87-A30-090-080		FET,2SK2541
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-235-080		CHIP-TR,DTC114EK
	87-A30-091-080		FET,2SJ460
	89-333-317-880		TR,2SC3331 (T/U)
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714O
	89-503-602-080		C-FET,2SK360E
	87-A30-318-080		TR,CSA952K
	87-A30-062-080		C-TR,KRC104S
	87-A30-489-080		C-TR,KRA107S
	87-A30-086-040		C-TR,CSD1306E
	87-A30-484-080		C-TR,KRA102S
DIODE			
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-A40-455-080		DIODE,RL203 GW
	87-A40-553-080		DIODE,IN4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-291-080		DIODE,1N4148M CPT)
	87-017-154-080		ZENER,HZS6C3L
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
	87-020-465-080		DIODE,1SS133
	87-A40-768-080		ZENER,UZ16BSA
MAIN C.B			
C3	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C4	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C5	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C6	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C9	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C10	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C11	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C12	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF
C19	87-010-917-000		CAP,E 3300-50 M SMG
C20	87-010-917-000		CAP,E 3300-50 M SMG
C21	87-010-389-090		CAP,E 2200-25 M SMG
C22	87-010-389-090		CAP,E 2200-25 SMG
C25	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C26	87-010-247-080		CAP, ELECT 100-50V M 11L SME
C30	87-010-430-080		CAP, ELECT 100-63
C31	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C32	87-010-197-080		CAP, CHIP 0.01-25 KB
C34	87-010-384-080		CAP, ELECT 100-25V M 11L SME
C35	87-010-380-080		CAP, ELECT 47-16 M 11L SME
C36	87-010-381-080		CAP,E 330-16 M SME
C38	87-010-197-080		C-CAP,S 0.01-25 KB
C60	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C61	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C97	87-010-196-080		C-CAP,S 0.1-25 ZF
C99	87-010-805-080		C-CAP,S 1-16 ZF
C101	87-010-183-080		C-CAP,S 2700P-50 KB
C102	87-010-183-080		C-CAP,S 2700P-50 KB
C103	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C104	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C105	87-010-184-080		CHIP CAP 3300P-50 KB
C106	87-010-184-080		CHIP CAP 3300P-50 KB
C107	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C108	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C109	87-010-179-080		C-CAP,S 1200P-50 KB
C110	87-010-179-080		C-CAP,S 1200P-50 KB
C111	87-010-391-080		CAP,E 10-35 M 11L SME
C112	87-010-391-080		CAP,E 10-35 M 11L SME
C113	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C114	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C119	87-010-197-080		CAP, CHIP 0.01-25 KB
C120	87-010-197-080		CAP, CHIP 0.01-25 KB
C123	87-010-184-080		C-CAP,S 3300P-50 KB
C124	87-010-184-080		C-CAP,S 3300P-50 KB
C125	87-012-368-080		C-CAP,S 0.1-50 ZF
C126	87-012-368-080		C-CAP,S 0.1-50 ZF
C127	87-012-368-080		C-CAP,S 0.1-50 ZF
C128	87-012-368-080		C-CAP,S 0.1-50 ZF
C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
C131	87-010-197-080		CAP, CHIP 0.01-25 KB
C132	87-010-197-080		CAP, CHIP 0.01-25 KB
C133	87-010-186-080		CAP,CHIP 4700P-50 KB
C140	87-010-182-080		C-CAP,S 2200P-50 KB
C241	87-010-181-080		C-CAP,S 1800P-50 KB
C242	87-010-181-080		C-CAP,S 1800P-50 KB
C301	87-010-180-080		CHIP CAP 1500P-50 KB
C302	87-010-180-080		CHIP CAP 1500P-50 KB
C303	87-010-180-080		CHIP CAP 1500P-50 KB
C304	87-010-180-080		CHIP CAP 1500P-50 KB
C305	87-010-198-080		CAP, CHIP 0.022-25 KB
C307	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C308	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C309	87-010-322-080		C-CAP,S 100P-50 J CH
C310	87-010-322-080		C-CAP,S 100P-50 J CH
C311	87-010-598-080		C-CAP,S 0.068-16VRK
C312	87-010-598-080		C-CAP,S 0.068-16VRK
C313	87-010-187-080		CAP CHIP S5600P-50 KB
C314	87-010-187-080		CAP CHIP S5600P-50 KB
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C318	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C326	87-010-198-080		CAP, CHIP 0.022-25 KB
C327	87-010-196-080		CHIP CAPACITOR,0.1-25
C360	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C365	87-010-197-080		C-CAP,S 0.01-50 KB
C399	87-012-140-080		CAP 470P-50 J CH
C401	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C402	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C403	87-012-145-080		CAP, CHIP S 270P-50 CH
C404	87-012-145-080		CAP, CHIP S 270P-50 CH
C405	87-010-197-080		CAP, CHIP 0.01-25 DM
C406	87-010-197-080		CAP, CHIP 0.01-25 DM
C407	87-010-197-080		CAP, CHIP 0.01-25 DM
C408	87-010-197-080		CAP, CHIP 0.01-25 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C412	87-010-405-080		CAP, ELECT 10-50V M 11L SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C452	87-010-382-080		CAP, ELECT 22-25V M 11L SME
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01-25 DM
C458	87-010-178-080		CHIP CAP 1000P-50
C459	87-010-175-080		CAP 560P-50
C460	87-010-196-080		C-CAP,S 0.1-25 ZF
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C470	87-018-127-080		CAP,TC U 470P-50 KB
C601	87-012-140-080		CAP,CHIP S 470P-50 J CH
C602	87-012-140-080		CAP,CHIP S 470P-50 J CH
C609	87-010-213-080		C-CAP,S 0.015-25 B
C610	87-010-213-080		C-CAP,S 0.015-25 B
C611	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C612	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C613	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C614	87-010-546-080		CAP, ELECT 0.33-50V M 11L SME
C615	87-010-154-080		CAP CHIP 10P-50 D CH
C616	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C617	87-010-385-080		CAP, ELECT 220-25V M 11L SME
C618	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C630	87-A10-201-080		C-CAP, S 0.33-16 KB
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01-25 DM
C678	87-010-197-080		CAP, CHIP 0.01-25 DM
C771	87-010-263-080		CAP, ELECT 100-10VM 11L SME
C772	87-010-197-080		CAP, CHIP 0.01-25 KB
C779	87-010-958-080		C-CAP,S 0.1-25 JB
C780	87-010-958-080		C-CAP,S 0.1-25 JB
C782	87-010-197-080		CAP, CHIP 0.01-25 KB
C783	87-010-197-080		CAP, CHIP 0.01-25 KB
C784	87-010-197-080		CAP, CHIP 0.01-25 KB
C785	87-010-197-080		CAP, CHIP 0.01-25 KB
C786	87-010-197-080		CAP, CHIP 0.01-25 KB
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A10-801-080		C-CAP,S 0.022-16 JB
C790	87-A10-801-080		C-CAP,S 0.022-16 JB
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01-25 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C795	87-010-197-080		CAP, CHIP 0.01-25 DM
C796	87-010-197-080		CAP, CHIP 0.01-25 DM
C797	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C798	87-010-197-080		CAP, CHIP 0.01-25 DM
C799	87-010-407-080		CAP, ELECT 33-50V M 11L SME
C801	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C803	87-010-198-080		CAP, CHIP 0.022-25 KB
C804	87-010-263-080		CAP, ELECT 100-10V M 11L SME
C807	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
C808	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C809	87-010-401-080		CAP, ELECT 1-50V M 11L SME
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01-25 KB
C815	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C816	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
C818	87-010-180-080		C-CAP,S 1500P-50 KB
C821	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C823	87-012-349-080		C-CAP,S 1000P-50 J CH
C824	87-010-404-080		CAP, ELECT 4.7-50 M 11L SME
C825	87-010-596-080		CAP, S 0.047-16
C831	87-010-406-080		CAP,E 22-50 M 11L SME
C842	87-010-197-080		CAP, CHIP 0.01-25 KB
C844	87-010-197-080		CAP, CHIP 0.01-25 KB
C850	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C851	87-010-197-080		CAP, CHIP 0.01-25 KB
C852	87-010-197-080		CAP, CHIP 0.01-25 KB
C853	87-010-197-080		CAP, CHIP 0.01-25 KB
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01-25 KB
C861	87-A11-132-080		CAP,TC U 0.01-50 KB
C862	87-010-401-080		CAP,E 1-50 M 11L SME
C869	87-010-197-080		CAP, CHIP 0.01-25 KB
C870	87-010-178-080		C-CAP,S 1000P-50 KB
C871	87-012-156-080		C-CAP,S 220P-50 J CH
C872	87-012-156-080		C-CAP,S 220P-50 J CH
C873	87-012-140-080		C-CAP,S 470P-50 J CH
C874	87-010-405-080		CAP,E 10-50 M 11L SME
C875	87-010-196-080		CHIP CAPACITOR,0.1-25
C876	87-010-405-080		CAP,E 10-50 M 11L SME
C877	87-010-197-080		CAP, CHIP 0.01-25 KB
C878	87-010-316-080		C-CAP,S 33P-50 J CH
C879	87-010-314-080		C-CAP,S 22P-50 J CH
C940	87-010-197-080		CAP, CHIP 0.01-25 KB
C942	87-010-149-080		C-CAP,S 55P-50 J CH
C947	87-010-197-080		CAP, CHIP 0.01-25 KB
C948	87-012-140-080		C-CAP,S 470P-50 J CH
C952	87-010-197-080		CAP, CHIP 0.01-25 KB
C957	87-010-311-080		C-CAP,S 12P-50 J CH
C958	87-010-197-080		CAP, CHIP 0.01-25 KB
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50 M 11L SME
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V M 11L SME
C972	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
C973	87-010-197-080		CAP, CHIP 0.01-25 KB
C974	87-010-197-080		CAP, CHIP 0.01-25 KB
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V M 11L SME
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01-25 KB
C984	87-010-197-080		CAP, CHIP 0.01-25 KB
C985	87-010-322-080		C-CAP,S 100P-50 J CH
C987	87-010-197-080		CAP, CHIP 0.01-25 KB
C989	87-010-197-080		CAP, CHIP 0.01-25 KB
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P-50 KB
C995	87-010-178-080		CHIP CAP 1000P-50 KB
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25 M 11L SME
C999	87-A11-145-080		CAP,TC U 0.01-50 ZF
CF831	87-008-423-010		FILTER,CF SFE10.7MS3G-A
CF832	82-785-747-010		CF,MS2 GHY,R
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	88-NF9-657-010		CONN,30P H BLK TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA1	8A-MA6-643-110		F-CABLE,9P 2.5 450MM
CON301	8A-MA6-642-010		CONN ASSY,3P (PH)
CON351	8A-MA6-641-010		CONN ASSY,8P (RPB)
FB602	87-A90-896-080		F-BEAD,035600STY7
FC602	88-906-321-110		FF-CABLE,6P 1.25 320MM
FFE831	A8-6ZA-191-130		6ZA-1 FEENM
J202	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
JW102	87-003-223-080		F-BEAD,BL02RN2
JW622	87-A90-896-080		F-BEAD,035600STY7
L101	87-003-383-010		COIL,1UH-K
L102	87-003-383-010		COIL,1UH-K
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-608-010		COIL,FM DET-N(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)

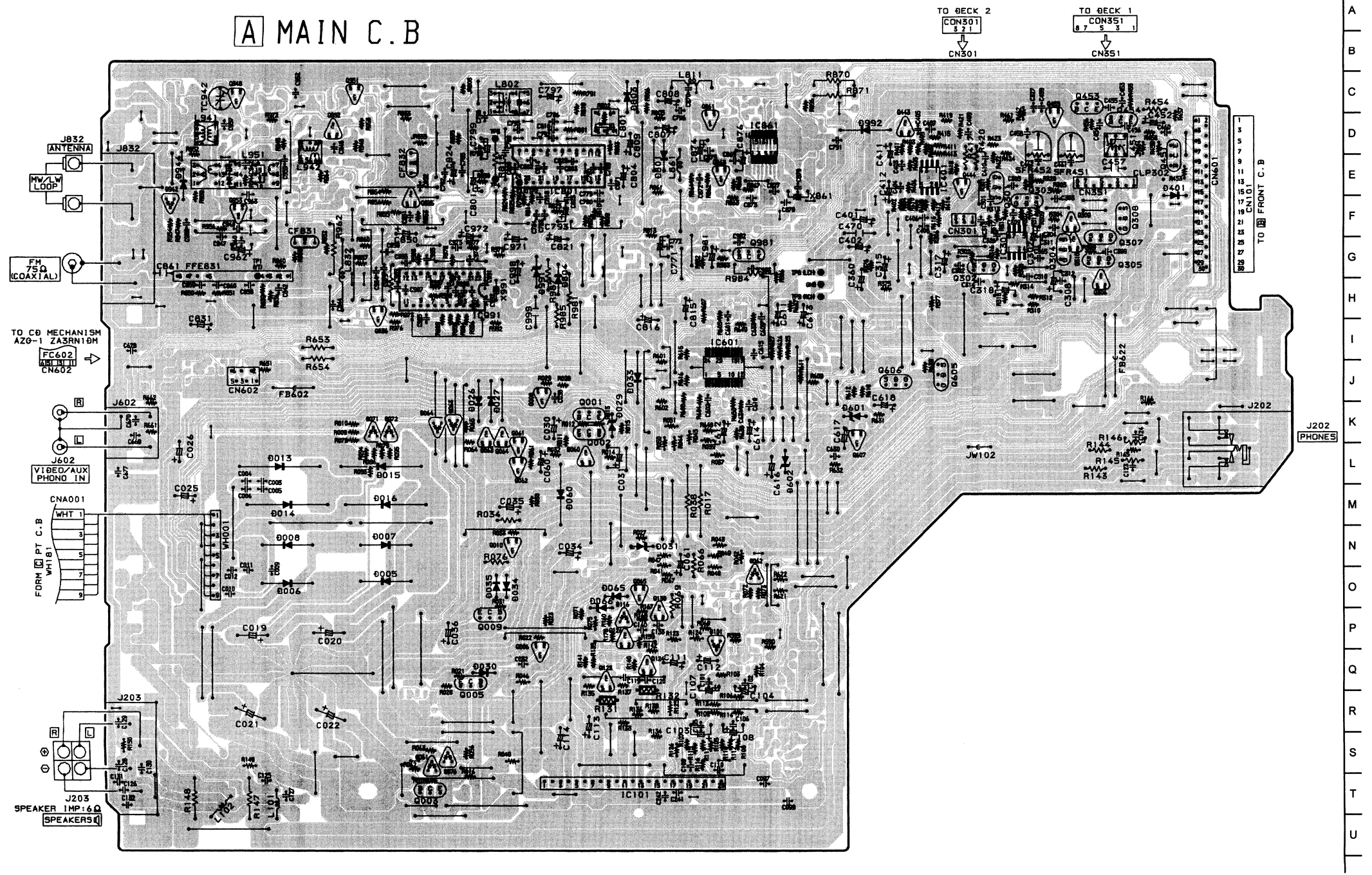
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L811	87-005-847-080		COIL,2.2UHK (CECS)
L832	87-005-847-080		COIL,2.2UHK (CECS)
L861	87-005-847-080		COIL,2.2UHK (CECS)
L941	87-A50-020-010		COIL,ANT LW (COI) 252KHZ
L942	87-A50-019-010		COIL,OSC LW (COI) 856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R131	87-A00-669-080		RES,M/F 0.22-2W J RA
R132	87-A00-669-080		RES,M/F 0.22-2W J RA
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R790	87-010-197-080		C-CAP,S 0.01-25 KB
R991	87-010-322-080		C-CAP,S 100P-50 J CH
R992	87-010-322-080		C-CAP,S 100P-50 J CH
R995	87-010-322-080		C-CAP,S 100P-50 J CH
SFR451	87-024-355-080		SFR,33K H EVN DJAA03
SFR452	87-024-355-080		SFR,33K H EVN DJAA03
TC942	87-011-253-080		TRIMMER,CER 30P 4.0X4.5 ECRLA
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

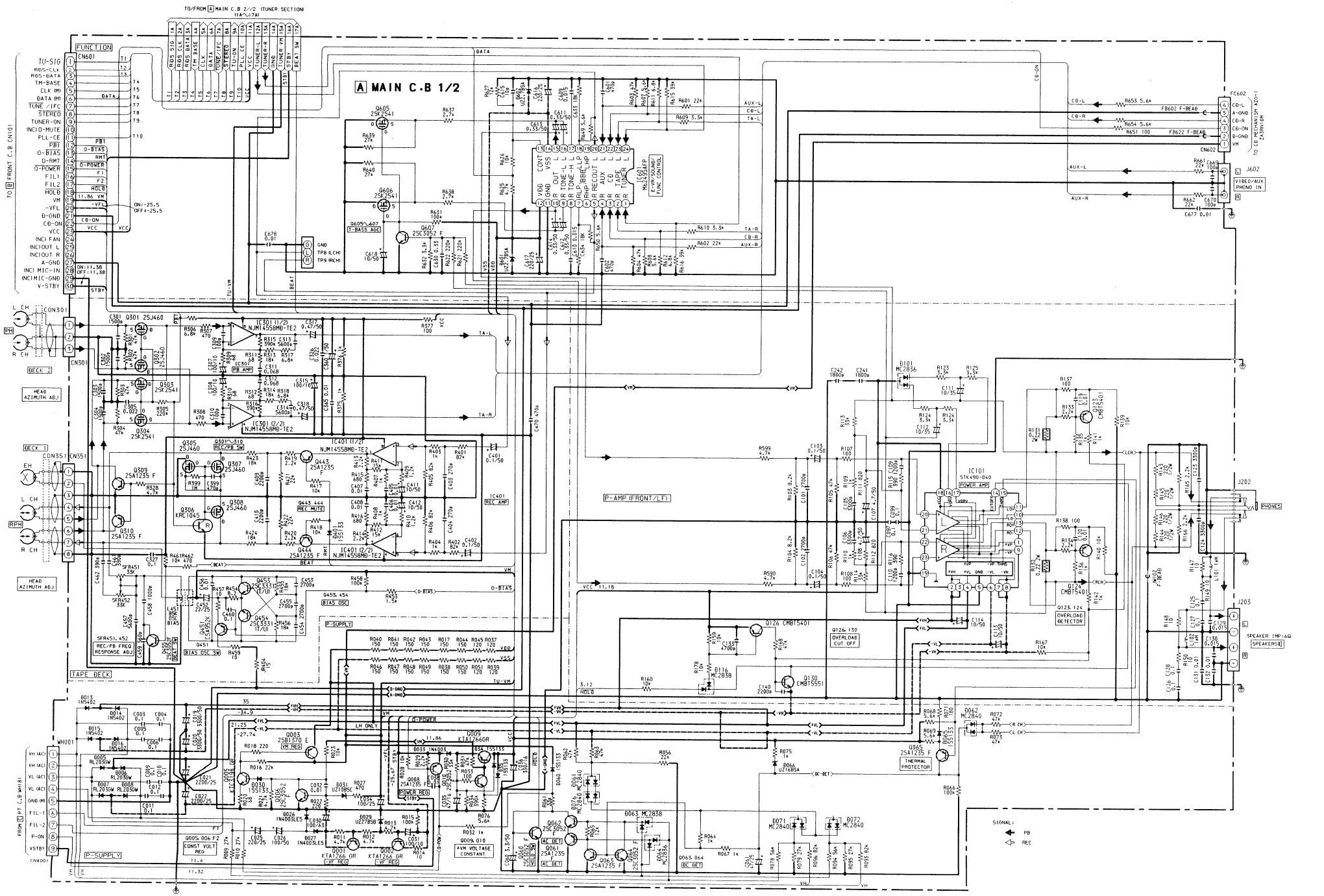
C101	87-A11-147-080		CAPACTOR TC U 0.047-50 ZF
C103	87-010-248-040		CAP,E 220-10 SME
C104	87-010-246-040		CAP,E 47-35 SME
C105	87-A11-146-080		CAP,TC U 0.022-50 ZF
C107	87-018-205-080		CAP,TC U 0.022-25 ZF
C108	87-018-131-080		CAP,TC U 1000P-50 KB
C109	87-018-131-080		CAP,TC U 1000P-50 KB
C110	87-018-131-080		CAP,TC U 1000P-50 KB
C111	87-018-205-080		CAP,TC U 0.022-25 ZF
C113	87-018-131-080		CAP,TC U 1000P-50V KB
C114	87-018-147-080		CAP,TC-U 10P-50 J CH
C115	87-018-128-080		CAP,TC U 560P-50 KB
C116	87-010-400-040		CAP,E 0.47-50 M 11L SME
C117	87-A11-148-080		CAP TC U 0.1-50 ZF
C118	87-010-248-040		CAP,E 220-10 SME
C119	87-010-248-040		CAP,E 220-10 SME
C120	87-018-123-080		CAP,TC U 220P-50V KB
C123	87-A11-148-080		CAP TC U 0.1-50 ZF
C124	87-A11-148-080		CAP TC U 0.1-50 ZF
C125	87-010-405-040		CAP,E 10-50 M 11L SME
C126	87-A11-148-080		CAP TC U 0.1-50 ZF
C130	87-010-405-040		CAP,E 10-50 M 11L SME
C201	87-018-118-080		CAP,TC-U 82P-50 B
C202	87-018-117-080		CAP,TC-U 68P-50 SL
C205	87-018-117-080		CAP,TC-U 68P-50 SL
C208	87-018-117-080		CAP,TC-U 68P-50 SL
C209	87-018-117-080		CAP,TC-U 68P-50 SL
C210	87-018-117-080		CAP,TC-U 68P-50 SL
C211	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C212	87-010-404-040		CAP,E 4.7-50 SME
C213	87-010-404-040		CAP,E 4.7-50 SME
C216	87-A11-147-080		CAPACTOR TC U 0.047-50 F
C701	87-010-384-040		CAP,E 100-25 SME
CN101	88-NF9-658-010		CONN,30P BLK TYK-B(P)
CN701	87-A60-673-010		CONN,9P H 2MM JMT
CN801	87-099-015-010		CONN,13P V BLK 6216
FC801	88-913-271-110		FF-CABLE,13P 1.25
FL201	8A-NFA-604-010		FL,10-BT-224GNK
L101	87-A50-050-010		COIL,CLK 4.19M(COI)
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A91-623-010		SW,RTRY EC12E2430403-25MM
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
SFR701	87-024-352-080		SFR,4.7K H EVN DJAA03

PT C.B

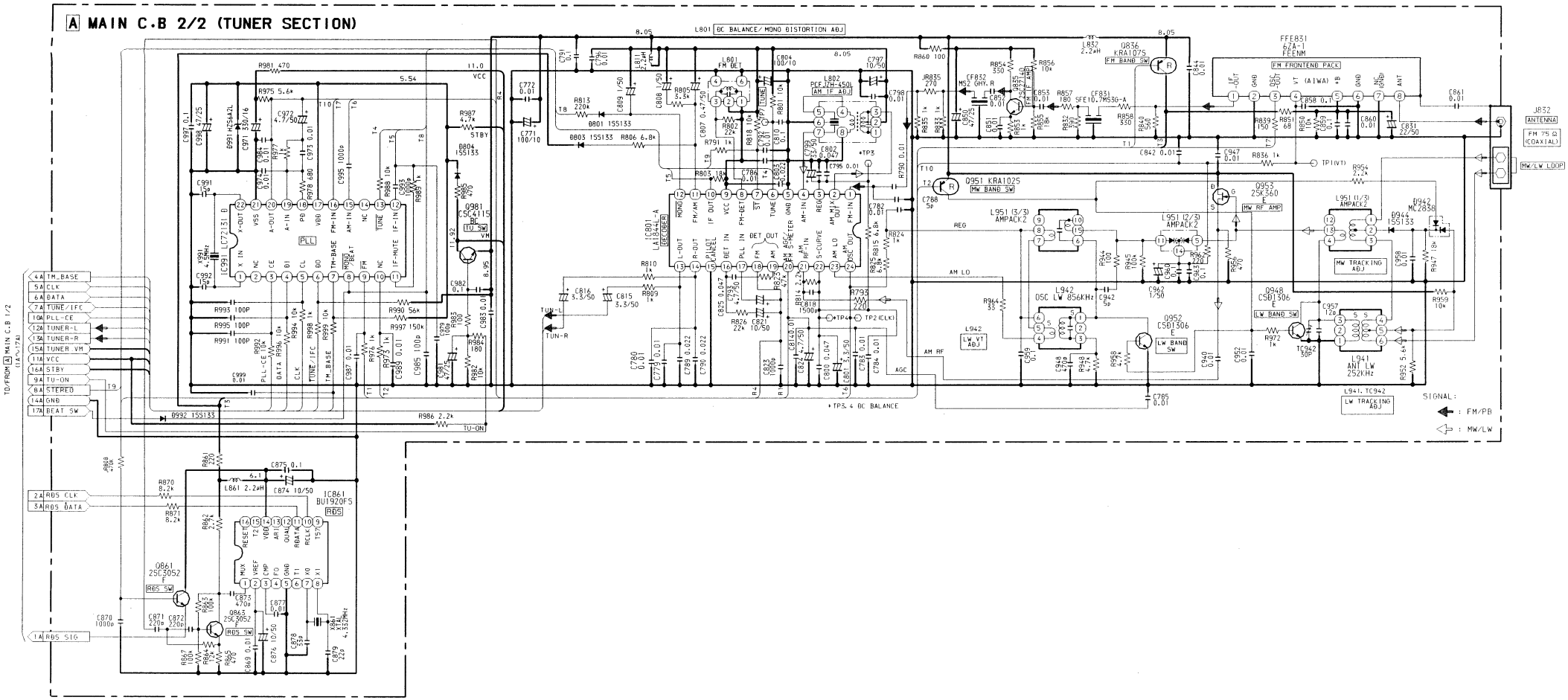
C183	87-010-387-080		CAP,E 470-25 SME
C184	87-010-403-080		CAP, ELECT 3.3-50V SME
⚠ PT1	8A-MA6-662-010		PT,AMA-6 EZ
⚠ PT181	8A-NF8-662-010		PT,SUB ANF-8 (E)
⚠ RY181	87-A90-976-010		RELAY,AC12V SDT-S-112LMR
⚠ T181	87-A60-317-010		TERMINAL, 1P MSC
⚠ T182	87-A60-317-010		TERMINAL, 1P MSC
WH181	87-A90-510-010		HLDR,WIRE 2.5-9P

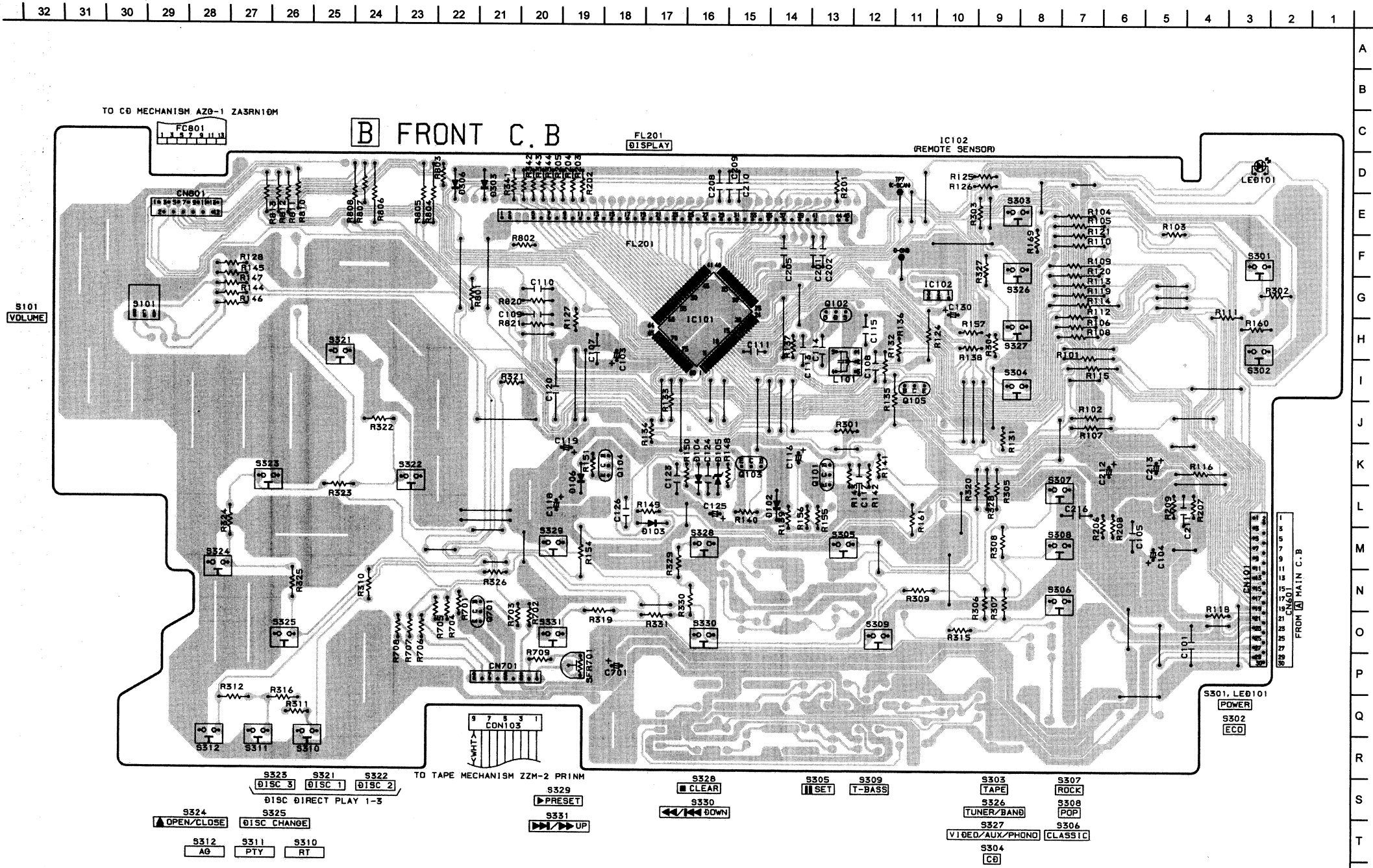

A MAIN C.B
TO DECK 2
CON301
CN301
TO DECK 1
CON351
CN351
J832
ANTENNA
MW/LW LOOP
FM 75Ω (COAXIAL)
TO CD MECHANISM AZ9-1 ZA3RN1DM
FC602
CN602
J602
VIDEO/AUX PHONO IN
CNA001
FORM PT C.B WH181
J203
SPEAKER IMP:6Ω
SPEAKERS
J202
PHONES
TO B FRONT C.B
CN1101
JW102
IC101
IC601
IC841
IC991

SCHEMATIC DIAGRAM - 1 (MAIN 1 / 2)

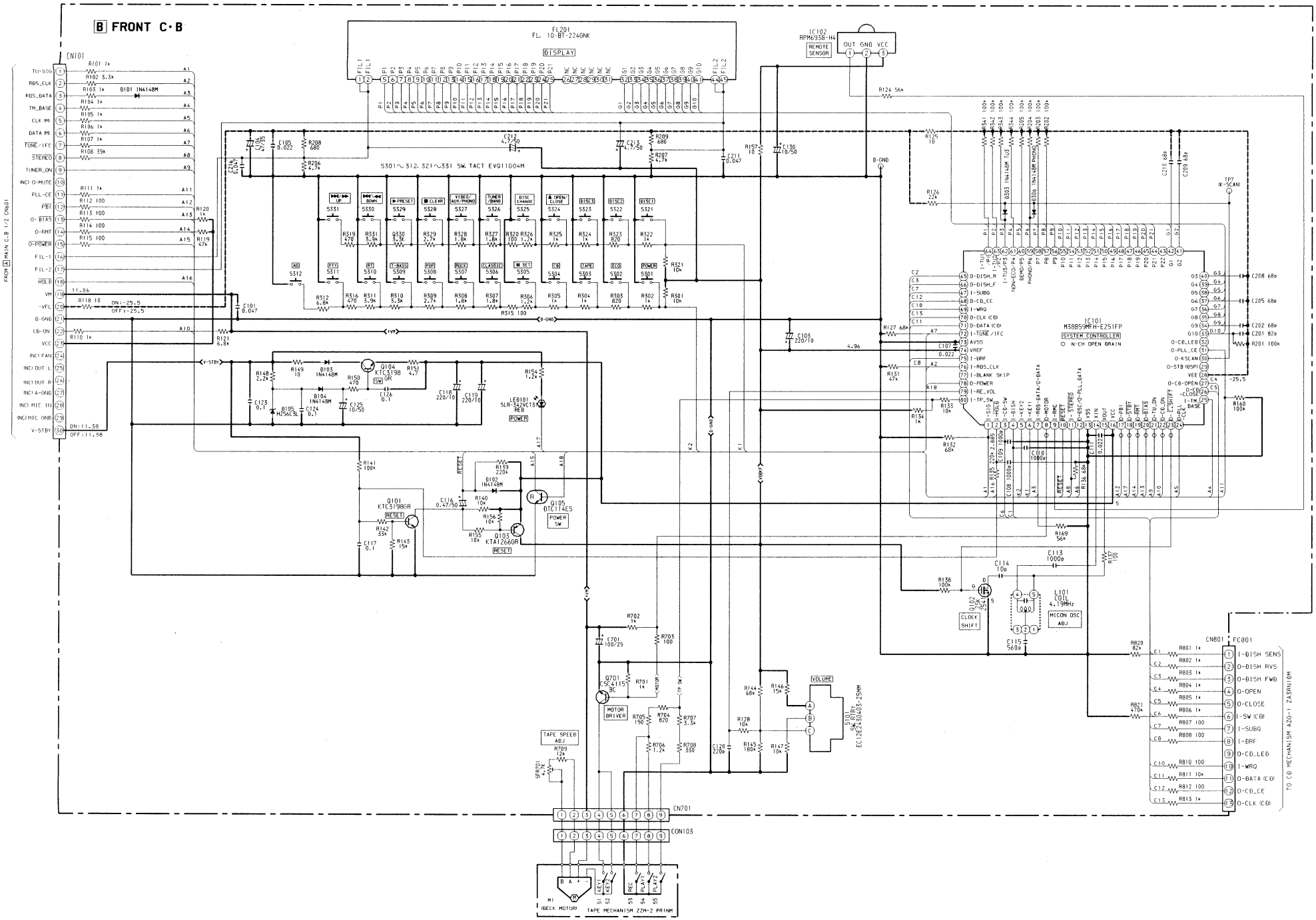


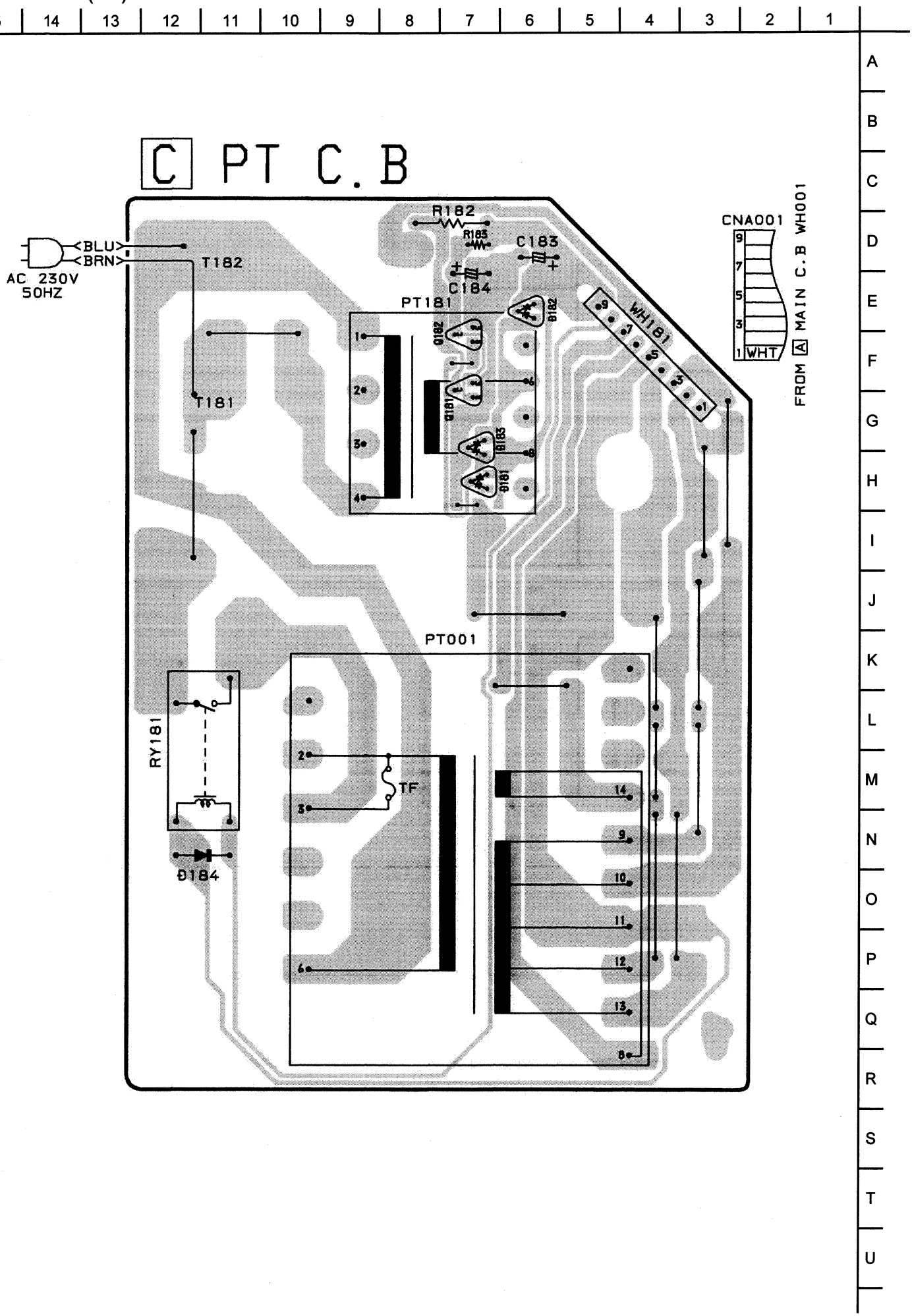
SCHEMATIC DIAGRAM - 2 (MAIN 2/2)



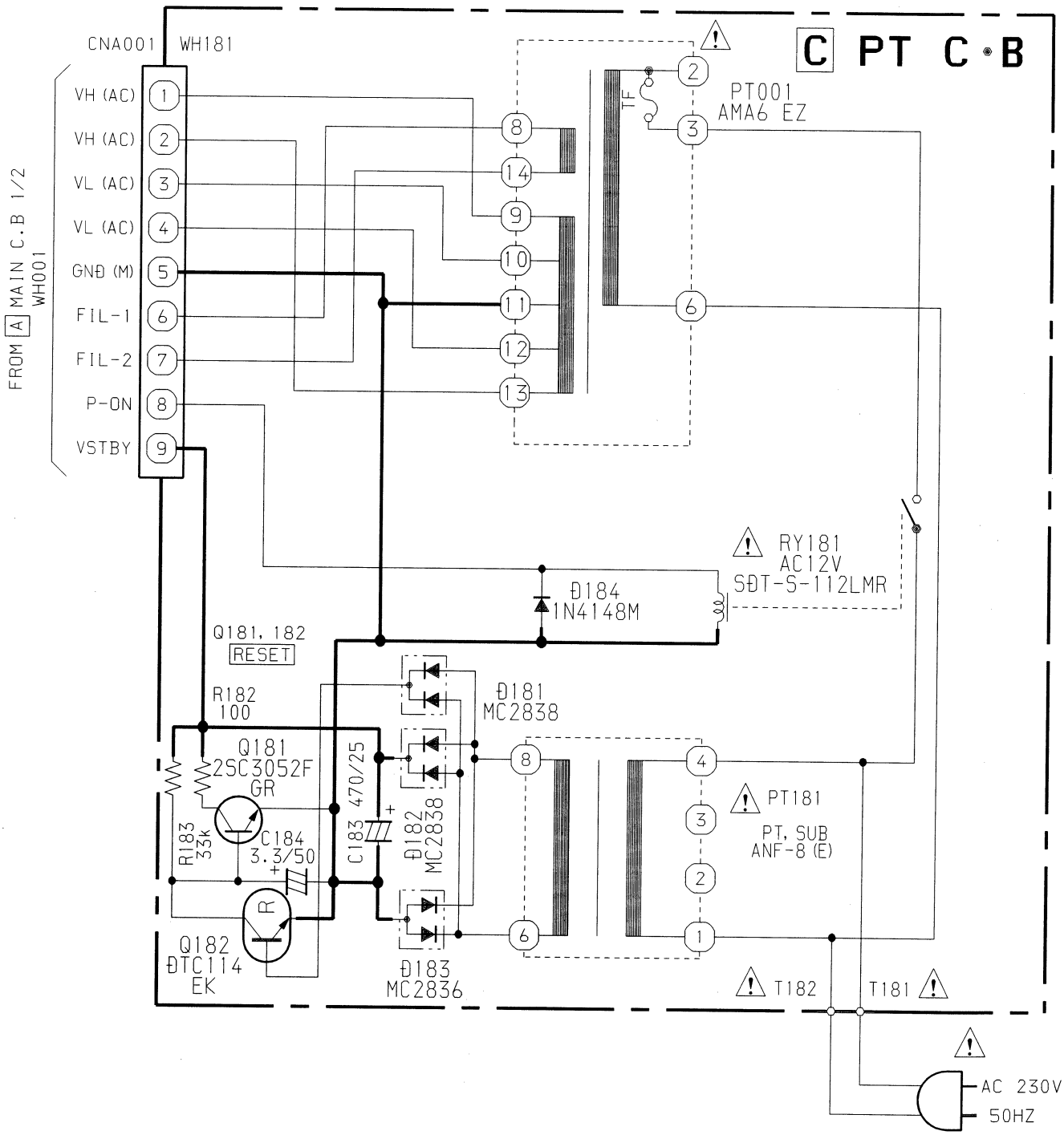

B FRONT C.B
TO CD MECHANISM AZD-1 ZA3RN1DM
FC801
FL201
DISPLAY
IC102
(REMOTE SENSOR)
LED101
S101
VOLUME
IC101
CN801
CN701
CN103
CN101
FROM A MAIN C.B
TO TAPE MECHANISM ZZM-2 PRINM
S301, LED101
POWER
S302
ECO
S303
TAPE
S304
CD
S305
SET
S306
CLASSIC
S307
ROCK
S308
POP
S309
T-BASS
S310
RT
S311
PTY
S312
AD
S321
DISC 1
S322
DISC 2
S323
DISC 3
DISC DIRECT PLAY 1-3
S324
OPEN/CLOSE
S325
DISC CHANGE
S326
TUNER/BAND
S327
VIDEO/AUX/PHONO
S328
CLEAR
S329
PRESET
S330
DOWN
S331
UP

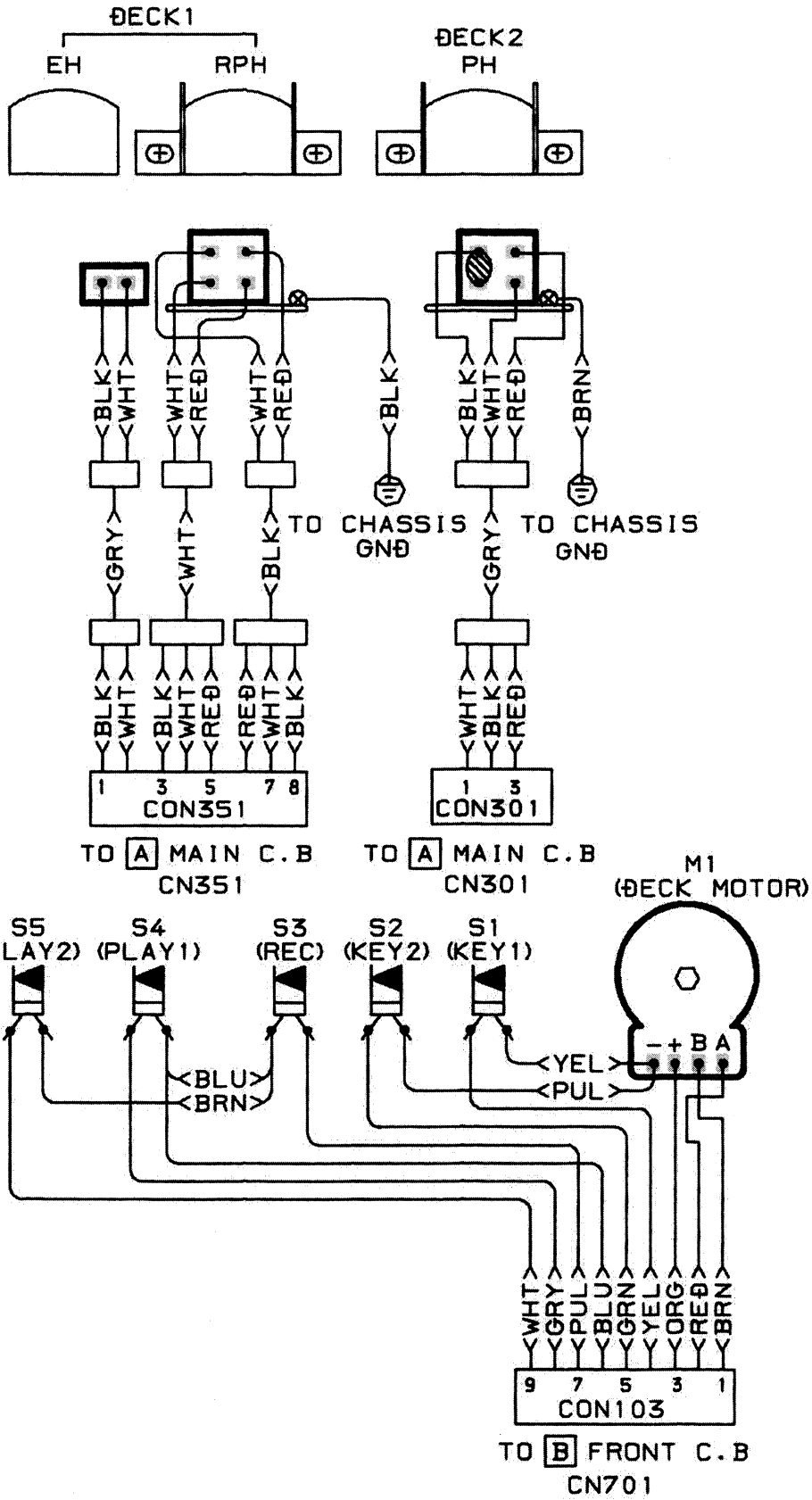
SCHEMATIC DIAGRAM - 3 (FRONT)




15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U
C PT C.B
BLU
BRN
AC 230V
50HZ
T182
T181
R182
R183
C183
C184
PT181
Q182
Q181
Q183
Q181
D182
D183
WH181
CNA001
9 7 5 3 1 WHT
FROM A MAIN C.B WH001
PT001
RY181
D184
TF
2
3
6
14
9
10
11
12
13
8

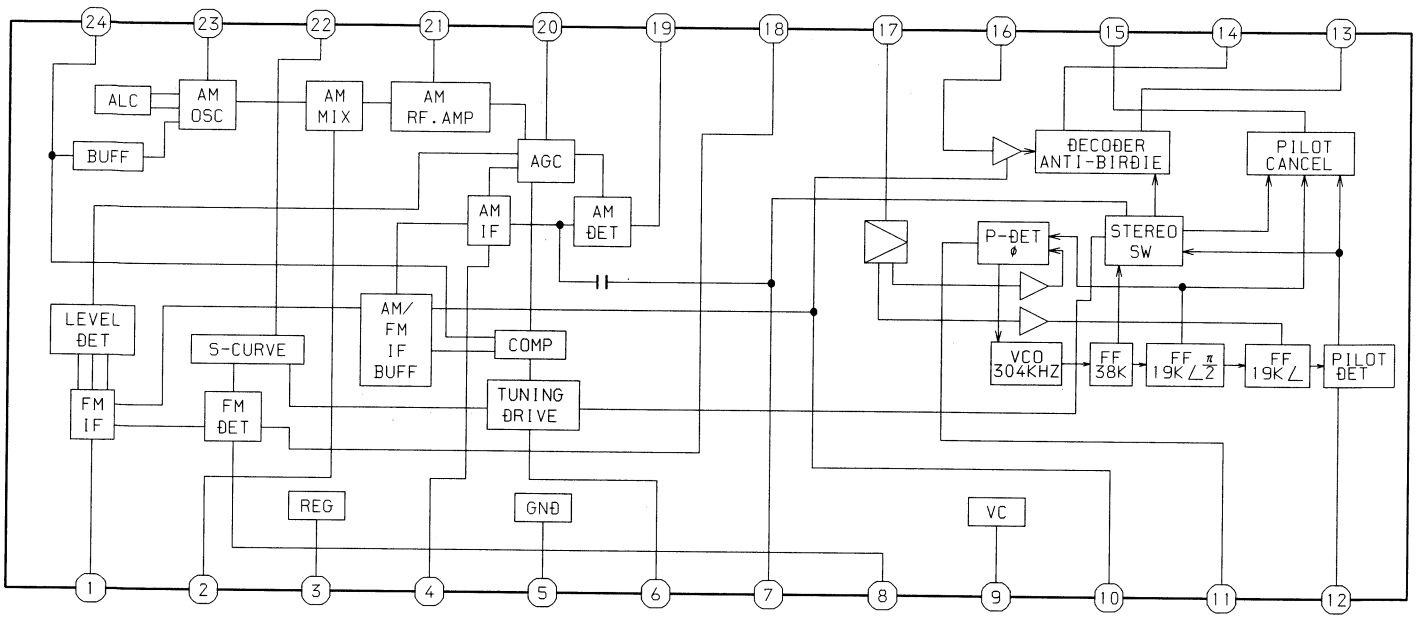
SCHEMATIC DIAGRAM - 4 (PT)



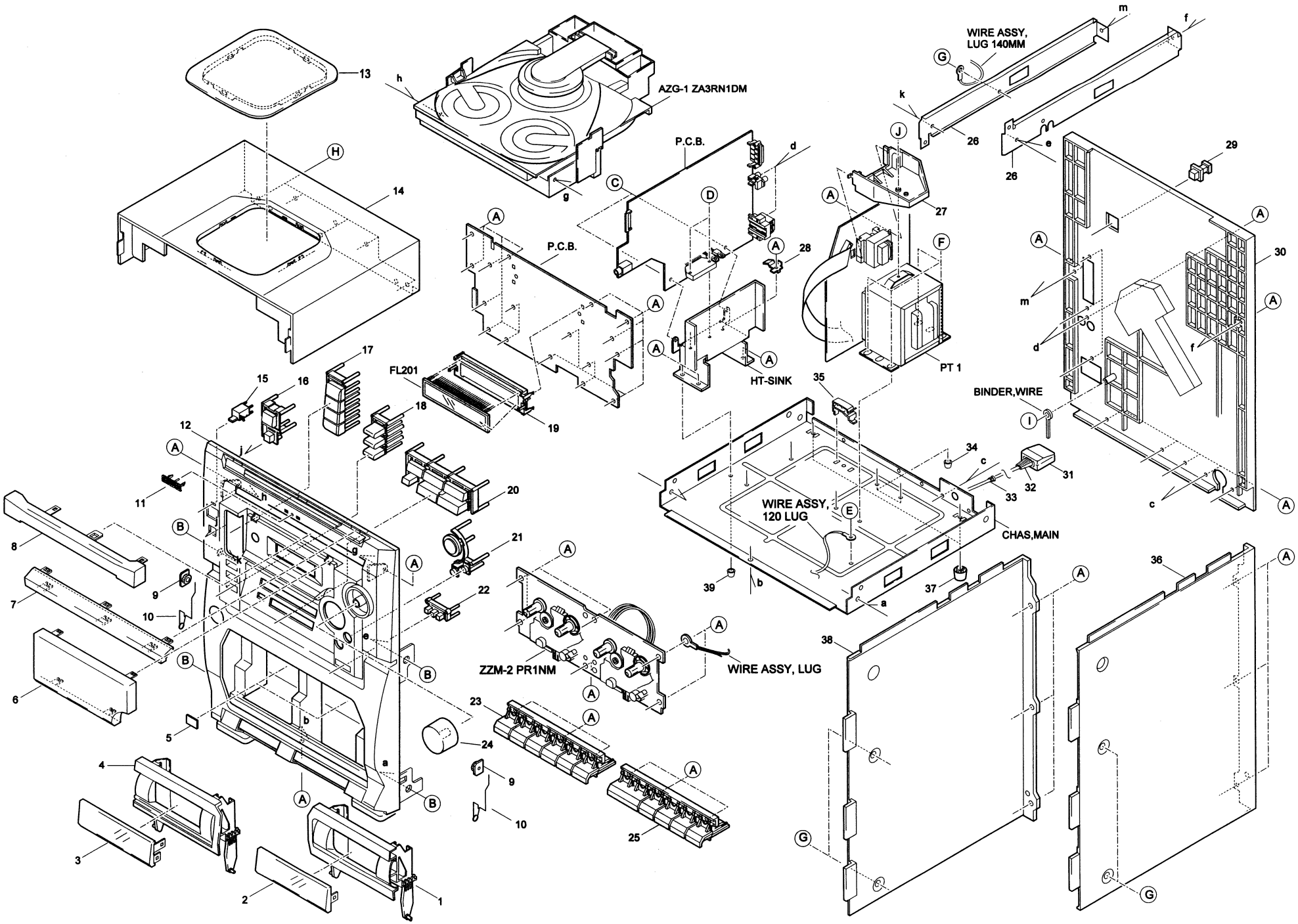

ĐECK1
EH
RPH
ĐECK2
PH
BLK
WHT
WHT
REĐ
WHT
REĐ
BLK
BLK
WHT
REĐ
BRN
GRY
WHT
BLK
TO CHASSIS GNĐ
GRY
TO CHASSIS GNĐ
BLK
WHT
BLK
WHT
REĐ
REĐ
WHT
BLK
WHT
BLK
REĐ
1 3 5 7 8
CON351
1 3
CON301
TO A MAIN C.B CN351
TO A MAIN C.B CN301
M1
(ĐECK MOTOR)
S5 (PLAY2)
S4 (PLAY1)
S3 (REC)
S2 (KEY2)
S1 (KEY1)
– + B A
YEL
PUL
BLU
BRN
WHT
GRY
PUL
BLU
GRN
YEL
ORG
REĐ
BRN
9 7 5 3 1
CON103
TO B FRONT C.B CN701

IC BLOCK DIAGRAM

IC, LA1844L-A



MECHANICAL EXPLODED VIEW 1 / 1



MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-007-010		BOX,CASS R
2	8A-MA6-017-010		WINDOW,CASS R
3	8A-MA6-016-010		WINDOW,CASS L
4	8A-MA6-006-010		BOX,CASS L
5	81-532-080-010		LABEL, CASS. COMPT
6	8A-MA6-013-010		WINDOW,DISP EZ
7	8A-MA6-014-010		WINDOW,CD
8	8A-MA6-011-010		PANEL,CD
9	86-NFZ-231-010		DMPR,70
10	8Z-CL8-209-010		SPR-T,CASS
11	87-B00-002-010		BADGE,AIWA 30 ABS SIL
12	8A-MA6-005-010		CABI,FR 99K
13	8A-MA3-057-010		WINDOW,TOP
14	8A-MA6-018-110		CABI,TOP
15	8A-MA6-032-010		REFLECTOR,POWER
16	8A-MA6-031-010		KEY,POWER
17	8A-MA6-033-010		KEY,FUNCTION
18	8A-MA6-034-110		KEY,GEQ
19	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
20	8A-MA6-035-010		KEY,PLAY
21	8A-MA6-036-010		KEY,CD
22	8A-MA6-038-010		KEY,RDS
23	8A-MA6-041-010		KEY,CASS L
24	8A-MA6-039-010		KNOB,RTRY VOL
25	8A-MA6-042-010		KEY,CASS R
26	88-MA1-208-210		JOINT,CABI
27	8A-NF9-211-010		HLDR,PWB PT HI
28	8A-NF8-205-010		HLDR,IC
29	84-ZG1-245-210		CAP,OPTICAL
30	8A-MA6-022-010		CABI,REAR EZ

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ 31	87-099-811-010		PLUG,ADPTR CONV(K)
⚠ 32	87-A80-143-010		AC CORD ASSY,E BLK
33	87-085-185-010		BUSHING, AC CORD (E)
34	8Z-NB8-240-010		COVER, PL
35	87-NF4-221-010		HLDR,CABLE
36	8A-MA5-046-010		PANEL,SIDE R 5
37	87-MA3-062-010		FOOT, H17
38	8A-MA5-045-010		PANEL,SIDE L 5
39	8Z-NB8-254-010		COVER, PL M3
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
C	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
D	87-067-581-010		TAPPING SCREW, BVT2+3-15
E	87-067-688-010		BVTT+3-6
F	87-067-586-010		TAPPING SCREW, BVT2+4-8
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
J	87-067-689-010		TAPPING SCREW, BVTT+3-8

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink

SPEAKER PARTS LIST <SX-ZL99 (YSC)>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MSG-002-010		GRILLE,FRAME ASSY
2	83-MSE-605-010		SPKR, CERAMIC
3	88-MSS-603-010		SPKR, W 130
4	88-NS5-605-010		SPKR, T 60

ACCESSORIES / PACKAGE LIST

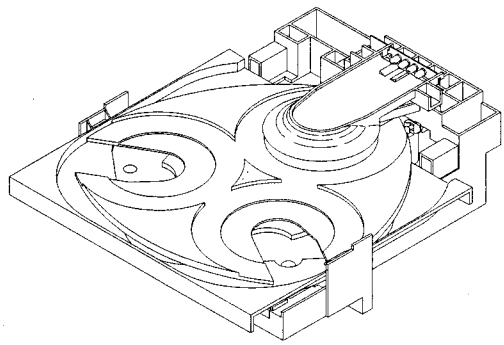
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-915-010		IB,K(E)M-99
2	87-A90-030-010		ANT,LOOP AM-NC C
3	87-A90-118-010		ANT,WIRE FM(Z)
4	8Z-NF9-701-210		RC UNIT,ZAS02

VIDE-V27184

aiwa SERVICE

AZG-1

English



SERVICE MANUAL

CD-R/RW MECHANISM

BASIC CD MECHANISM :ZA3:3ZG-2[E3]
ZA4:KSM-2131FAM
ZA8:KSM-880CAB

TYPE	BASIC CD MECHANISM
ZA3RDM	3ZG-2 E3
YZA3RDM	3ZG-2 E3
ZA3RNDM	3ZG-2 E3
YZA3RNDM	3ZG-2 E3
ZA3RN1DM	3ZG-2 E3
YKZA3RDF	3ZG-2 E3
YKZA3RNDF	3ZG-2 E3
ZA3RNM	3ZG-2 E3
YZA3RDCM	3ZG-2 E3
YZA3RNDCM	3ZG-2 E3
ZA4RDC	KSM-2131 FAM
ZA4RNDC	KSM-2131 FAM
ZA8RDC	KSM-880CAB

aiwa

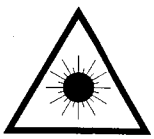
S/M Code No. 09-001-335-3NC

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the figure below.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

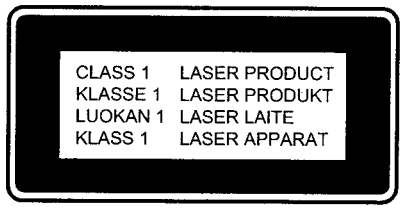
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

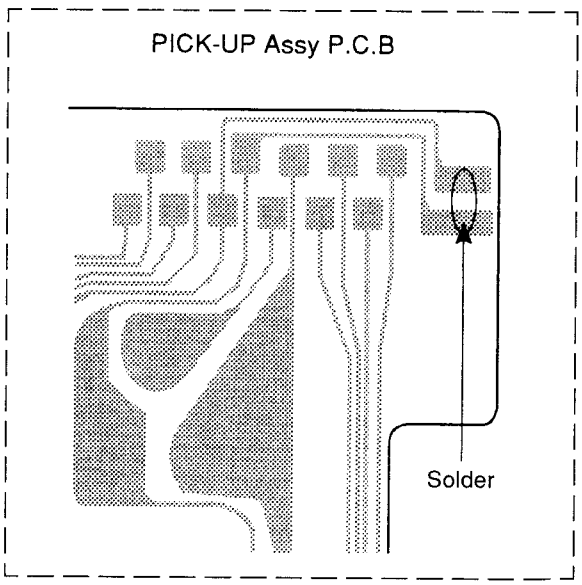
ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

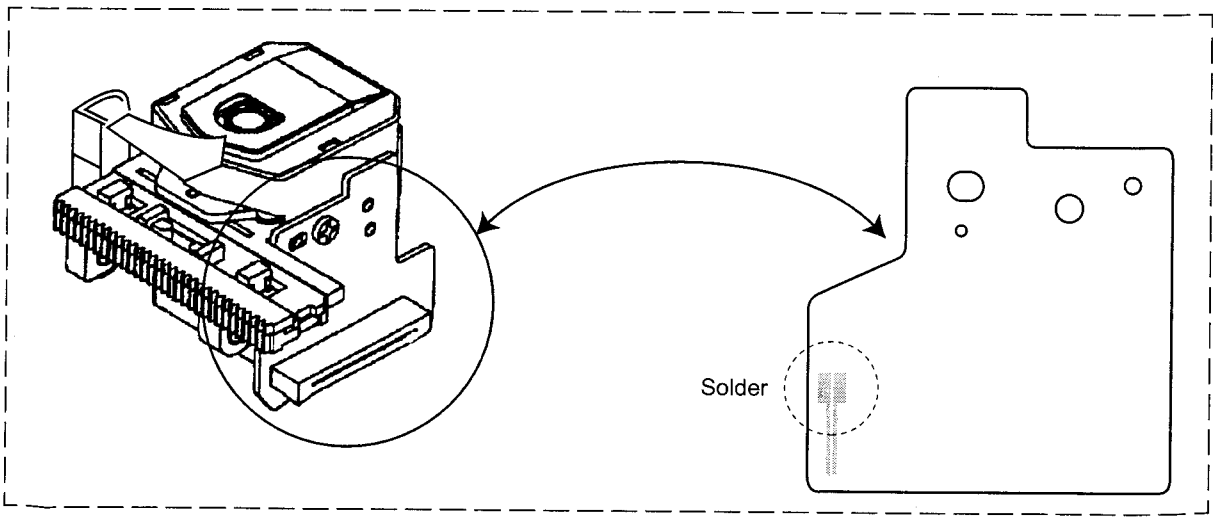
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



ZA3/ZA4 MODEL (KSS-213F)



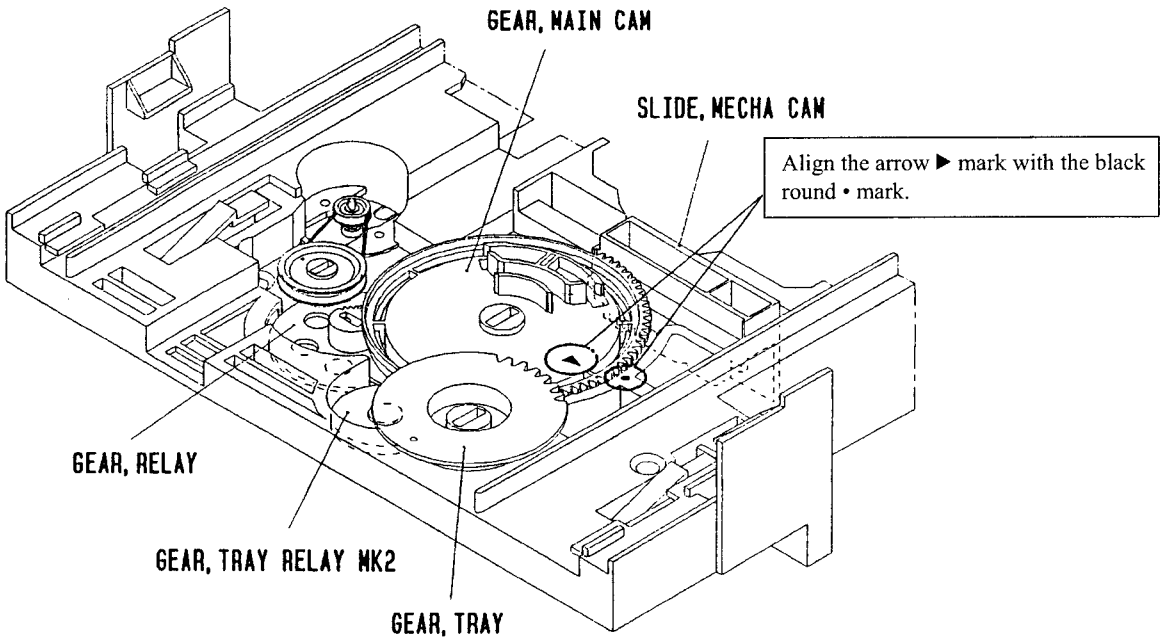
ZA8 MODEL



How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-446-010		C-IC,LA9241ML
	87-017-917-080		IC,BU4066BCF
	87-A21-319-010		C-IC,LC78622NE
	87-A20-445-010		IC,BA5936
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	87-026-239-080		TR,DTC114TK (0.2W)
	87-026-295-080		TR,DTC144TK
	87-A30-515-080		
	87-A30-087-080		C-FET,2SK2158
	87-026-237-080		CHIP-TR,DTC124XK <ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM,YZA3RDM>
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F<EXCEPT ZA3RNM>
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-020-331-080		CHIP-DIODE,DAN202K
	87-A40-337-080		ZENER,MTZJ 6.8B
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-620-080		ZENER,MTZJ6.2A
3CD C.B			
C11	87-012-393-080		C-CAP,S 0.22-16 R K
C12	87-012-157-080		C-CAP,S 330P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C12	87-012-157-020		C-CAP,S 330P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM>
C13	87-016-369-080		C-CAP,S 0.033-25 B K <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C13	87-016-369-020		C-CAP,S 0.033-25 B K <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C14	87-A10-201-080		C-CAP,S0.33-16 KB
C15	87-010-213-020		C-CAP,S 0.015-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C15	87-010-213-080		C-CAP,S 0.015-50 B <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C16	87-010-992-080		C-CAP,S 0.047-25 B
C17	87-010-184-020		C-CAP,S 3300P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C17	87-010-184-080		CHIP CAPACITOR 3300P(K) <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C18	87-A11-177-080		C-CAP,S 0.15-16 K B
C19	87-010-992-080		C-CAP,S 0.047-25 B<ZA8RDC>
C19	87-010-198-080		CAP, CHIP 0.022<EXCEPT ZA8RDC>
C20	87-010-178-020		C-CAP,S 1000P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C20	87-010-178-080		CHIP CAP 1000P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C21	87-012-393-080		C-CAP,S 0.22-16 R K
C22	87-016-083-080		C-CAP,S 0.15-16 RK
C23	87-010-197-020		C-CAP,S 0.01-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C23	87-010-197-080		CAP, CHIP 0.01 DM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C24	87-010-186-020		C-CAP,S 4700P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C24	87-010-186-080		CAP,CHIP 4700P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C25	87-010-400-040		CAP,E 0.47-50
C26	87-010-322-080		C-CAP,S 100P-50 CH<ZA8RDC>
C26	87-010-176-020		C-CAP,S 680P-50 J SL <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C26	87-010-176-080		C-CAP,S 680P-50 SL <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA3RDCM,ZA3RNDCM>
C27	87-010-382-040		CAP,E 22-25 SME
C28	87-010-545-040		CAP,E 0.22-50 SME
C29	87-010-184-020		C-CAP,S 3300P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C29	87-010-184-080		CHIP CAPACITOR 3300P(K) <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C31	87-010-186-020		C-CAP,S 4700P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C31	87-010-186-080		CAP,CHIP 4700P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C32	87-010-315-020		C-CAP,S 27P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C32	87-010-315-080		C-CAP,S 27P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C33	87-016-081-080		C-CAP,S 0.1-16 RK
C35	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C35	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C37	87-010-405-080		CAP, ELECT 10-50V
C38	87-010-263-080		CAP, ELECT 100-10V
C39	87-010-992-080		C-CAP,S 0.047-25 B<EXCEPT ZA8RDC>
C39	87-010-197-080		CAP, CHIP 0.01 DM<ZA8RDC>
C40	87-010-401-080		CAP, ELECT 1-50V
C41	87-016-081-080		C-CAP,S 0.1-16 RK
C42	87-010-263-080		CAP, ELECT 100-10V
C43	87-010-197-020		C-CAP,S 0.01-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C43	87-010-197-080		CAP, CHIP 0.01 DM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C44	87-010-263-080		CAP, ELECT 100-10V
C46	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C46	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C47	87-010-260-080		CAP, ELECT 47-25V
C48	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C48	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C49	87-010-404-080		CAP, ELECT 4.7-50V
C50	87-010-197-020		C-CAP,S 0.01-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C50	87-010-197-080		CAP, CHIP 0.01 DM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C51	87-010-263-040		CAP,E 100-10
C52	87-012-156-020		C-CAP,S 220P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C52	87-012-156-080		C-CAP,S 220P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C53	87-010-381-080		CAP, ELECT 330-16V <EXCEPT ZA4RNDC>
C71	87-012-393-080		C-CAP,S 0.22-16 R K<ZA8RDC>
C80	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C80	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C101	87-016-369-020		C-CAP,S 0.033-25 B K <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C101	87-016-369-080		C-CAP,S 0.033-25 B K <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C102	87-016-081-080		C-CAP,S 0.1-16 RK
C103	87-010-318-080		C-CAP,S 47P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C103	87-010-318-020		C-CAP,S 47P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C104	87-012-154-080		C-CAP,S 150P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C104	87-012-154-020		C-CAP,S 150P-50 J CH GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C105	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C105	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C109	87-010-197-020		C-CAP,S 0.01-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C109	87-010-197-080		CAP, CHIP 0.01 DM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C111	87-010-312-080		C-CAP,S 15P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C111	87-010-312-020		C-CAP,S 15P-50 J CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C112	87-010-154-020		C-CAP,S 10P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C112	87-010-154-080		CAP CHIP 10P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C113	87-010-178-020		C-CAP,S 1000P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C113	87-010-178-080		CHIP CAP 1000P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C115	87-010-404-080		CAP, ELECT 4.7-50V
C116	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C116	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C117	87-010-263-040		CAP,E 100-10
C118	87-010-178-020		C-CAP,S 1000P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C118	87-010-178-080		CHIP CAP 1000P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C119	87-010-194-080		CAP, CHIP 0.047<ZA3RN1DM>
C121	87-010-403-080		CAP, ELECT 3.3-50V
C122	87-010-403-080		CAP, ELECT 3.3-50V
C123	87-010-180-080		C-CER 1500P
C124	87-010-180-080		C-CER 1500P
C132	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C132	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C135	87-010-314-020		C-CAP,S 22P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C135	87-010-314-080		C-CAP,S 22P-50V <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C191	87-010-263-040		CAP,E 100-10
C192	87-010-178-020		C-CAP,S 1000P-50 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C192	87-010-178-080		CHIP CAP 1000P <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C193	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C193	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C201	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C201	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C204	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C204	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C205	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C205	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C206	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C206	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C207	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C207	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C208	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C208	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C211	87-010-405-040		CAP,E 10-50
C212	87-010-405-040		CAP,E 10-50
C213	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C213	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C251	87-010-322-020		C-CAP,S 100P-50 CH <ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C251	87-010-322-080		C-CAP,S 100P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C252	87-010-322-080		C-CAP,S 100P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C252	87-010-322-020		C-CAP,S 100P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C253	87-010-322-020		C-CAP,S 100P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C253	87-010-322-080		C-CAP,S 100P-50 CH <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C254	87-010-322-020		C-CAP,S 100P-50 CH <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C254	87-010-322-080		C-CAP,S 100P-50 J GH GRM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C281	87-010-382-040		CAP,E 22-25 SME
C402	87-010-197-020		C-CAP,S 0.01-25 B <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C402	87-010-197-080		CAP, CHIP 0.01 DM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C403	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C403	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C404	87-010-260-040		CAP,E 47-25 SME
C405	87-010-382-080		CAP, ELECT 22-25V
C421	87-010-382-080		CAP, ELECT 22-25V
C422	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,ZA3RNM,YZA3RNDM,YZA3RDM>
C422	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
C901	87-010-260-080		CAP, ELECT 47-25V<EXCEPT ZA3RNM>
C902	87-010-196-020		C-CAP,S 0.1-25 Z F GRM <ZA3RN1DM,ZA3RDM,ZA3RNDM,YZA3RNDM,YZA3RDM>
C902	87-010-196-080		CHIP CAPACITOR,0.1-25 <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC,ZA3RDCM,ZA3RNDCM>
CN1	87-A60-429-010		CONN,16P H TOC-A
CN2	87-A60-081-010		CONN,06P H 9604S-06F
CN104	8A-ZA5-610-010		CONN ASSY,2P
CN201	87-099-030-010		CONN,13P 6216H
CN203	87-099-212-010		CONN,5P 6216 V
CN204	84-ZG1-648-010		CONN ASSY,6P <ZA4RDC,ZA4RNDC,ZA8RDC>
CN204	87-099-199-010		CONN,6P 6216 H <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
L11	87-005-849-080		COIL,10UH(CECS)
L101	87-005-614-080		COIL 100UH LAV35 J
L102	87-005-602-080		COIL,10UH LAV35 J
LED901	87-A40-558-010		LED,SLZ-8128A-01-A<EXCEPT ZA3RNM>
M201	87-045-383-010		MOT,M9I50T28-2 <ZA4RDC,ZA4RNDC,ZA8RDC>
M201	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA) <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
SFR101	87-A90-787-080		SFR,100K H HOKU
SW201	87-036-109-010		PUSH SWITCH
SW202	87-036-109-010		PUSH SWITCH
X101	87-A70-046-010		VIB,XTAL 16.934MHZ
LED C.B<ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM,YZA3RDM>			
LED302	87-A40-263-080		LED,SLH-56PCT31 GRN <ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM,YZA3RDM>
LED303	87-A40-268-080		LED,SLH-56DCT31 ORN <ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM,YZA3RDM>
T-T C.B			
C401	87-A11-148-080		CAP,TC U 0.1-50 Z F
CN401	87-A60-082-010		CONN,05P H 9604S-05F <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,YZA3RDM>
CN401	86-NFZ-675-010		CONN,5P H 6216-11H <ZA3RNDM,ZA3RNM,ZA8RDC,ZA3RDCM,ZA3RNDCM,YZA3RNDM>
M401	87-045-364-010		MOTOR(BCH3B14)
PS401	87-026-573-010		SNSR,PHOTO GP1S53V <EXCEPT ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA3RNDF,YZA3RDM>
PS401	87-A90-156-010		SNSR,SG-240 <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA3RNDF,YZA3RDM>

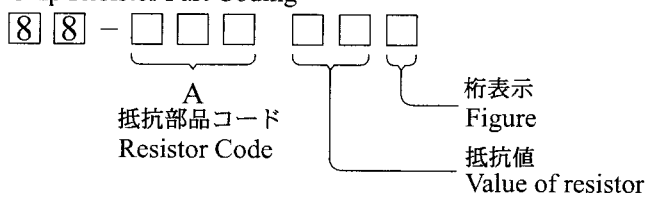
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
DRIVE C.B<EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>			
M1	87-045-358-010		MOT,RF-310TA 43 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
M2	87-045-356-010		MOT,RF-310TA 30 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
PIN3	87-A60-086-010		CONN,6P H6216-11 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
SW1	87-A90-042-010		SW,LEAF MSW-17310MVP0 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
MOTOR C.B<ZA4RDC,ZA4RNDC>			
M2	9X-262-513-210		SLED MOTOR<ZA4RDC,ZA4RNDC>
PIN3	91-564-722-110		CONNECTOR 6P<ZA4RDC,ZA4RNDC>
SW1	91-572-085-110		LEAF SW<ZA4RDC,ZA4RNDC>
MOTOR C.B<ZA8RDC>			
PIN3	91-564-722-110		CONN,PIN 6P<ZA8RDC>
SW1	91-572-085-110		LEAF SWITCH<ZA8RDC>

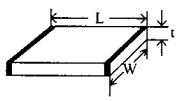
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding

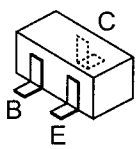


チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

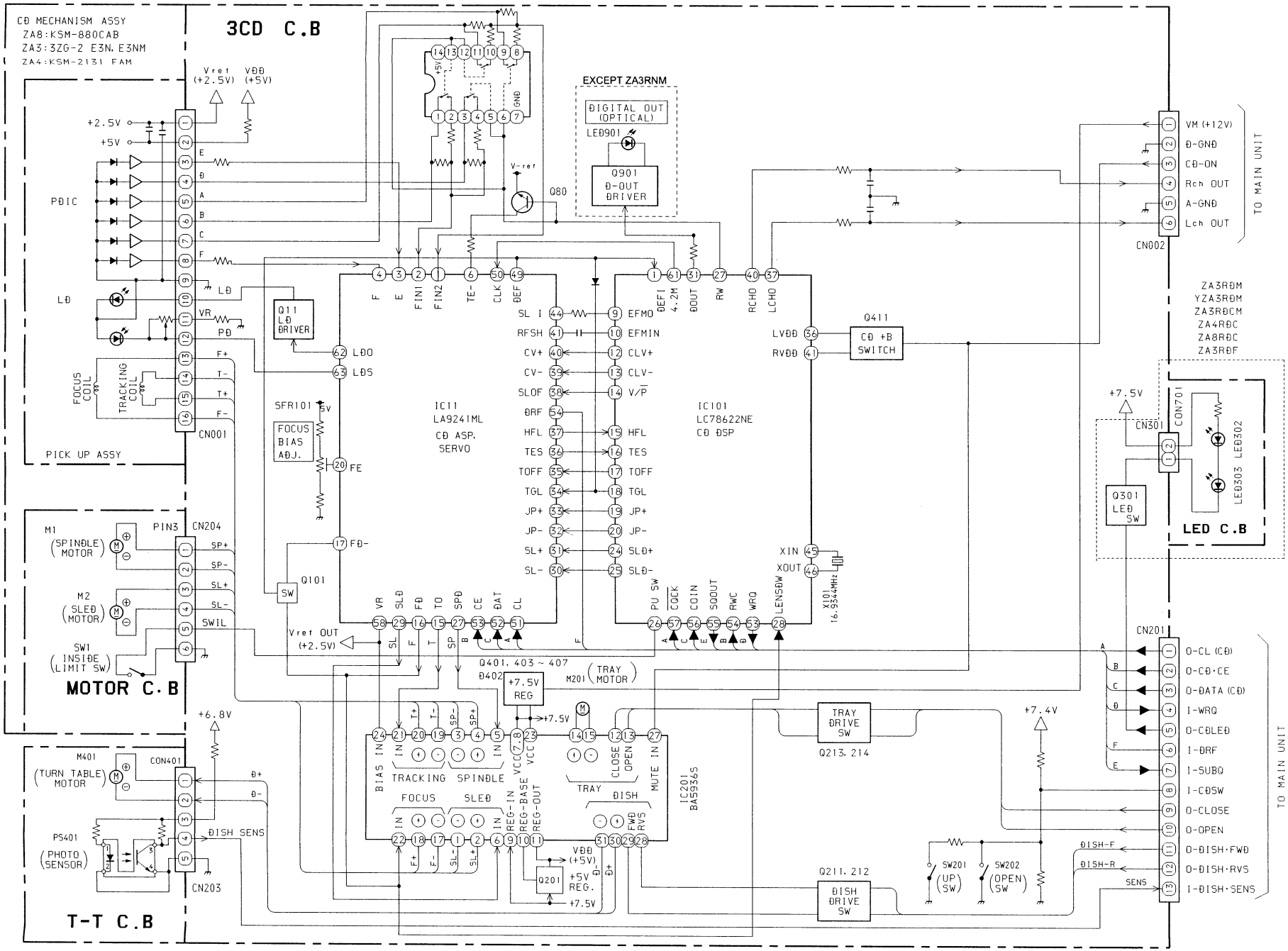
TRANSISTOR ILLUSTRATION

KTA1266

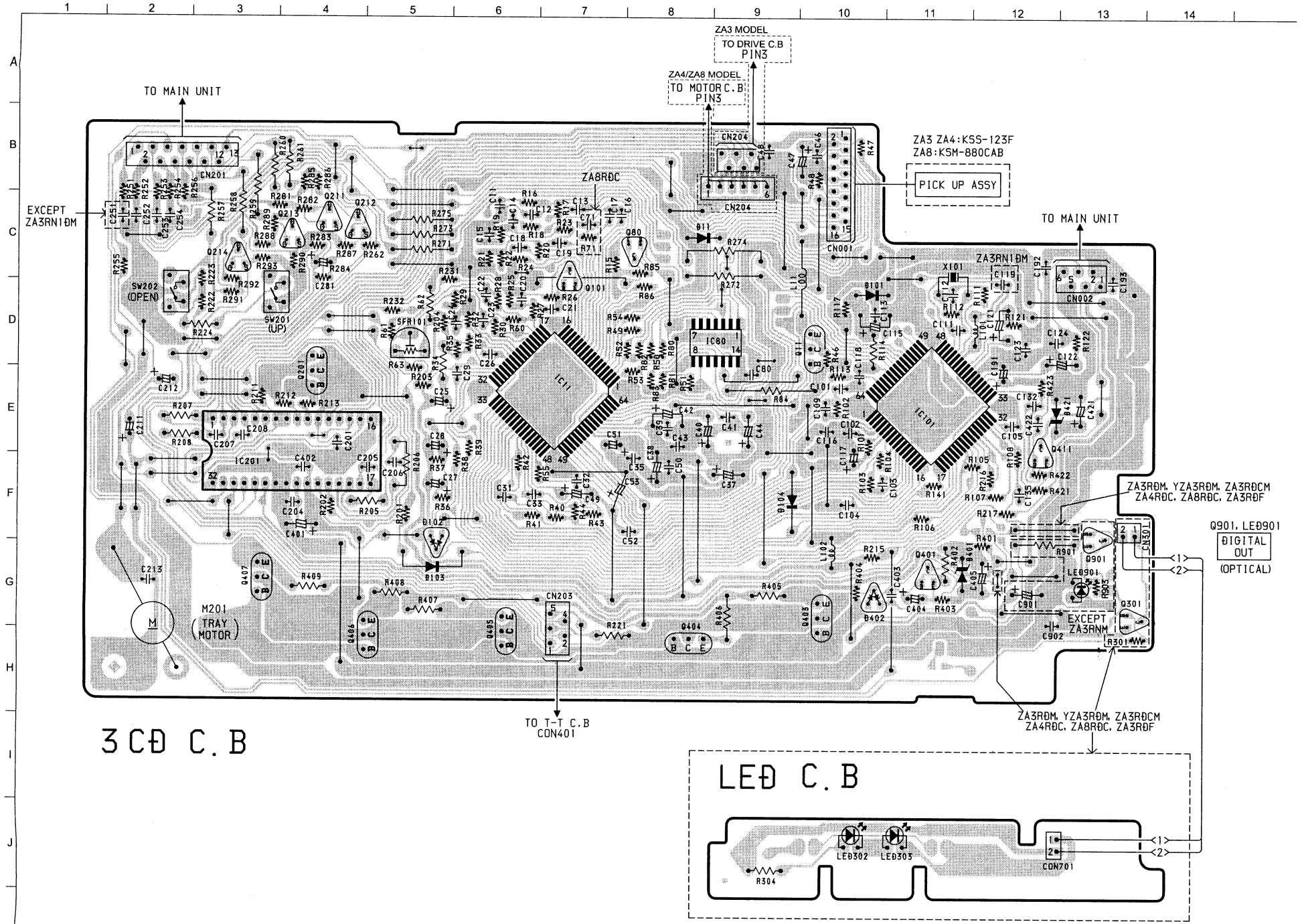


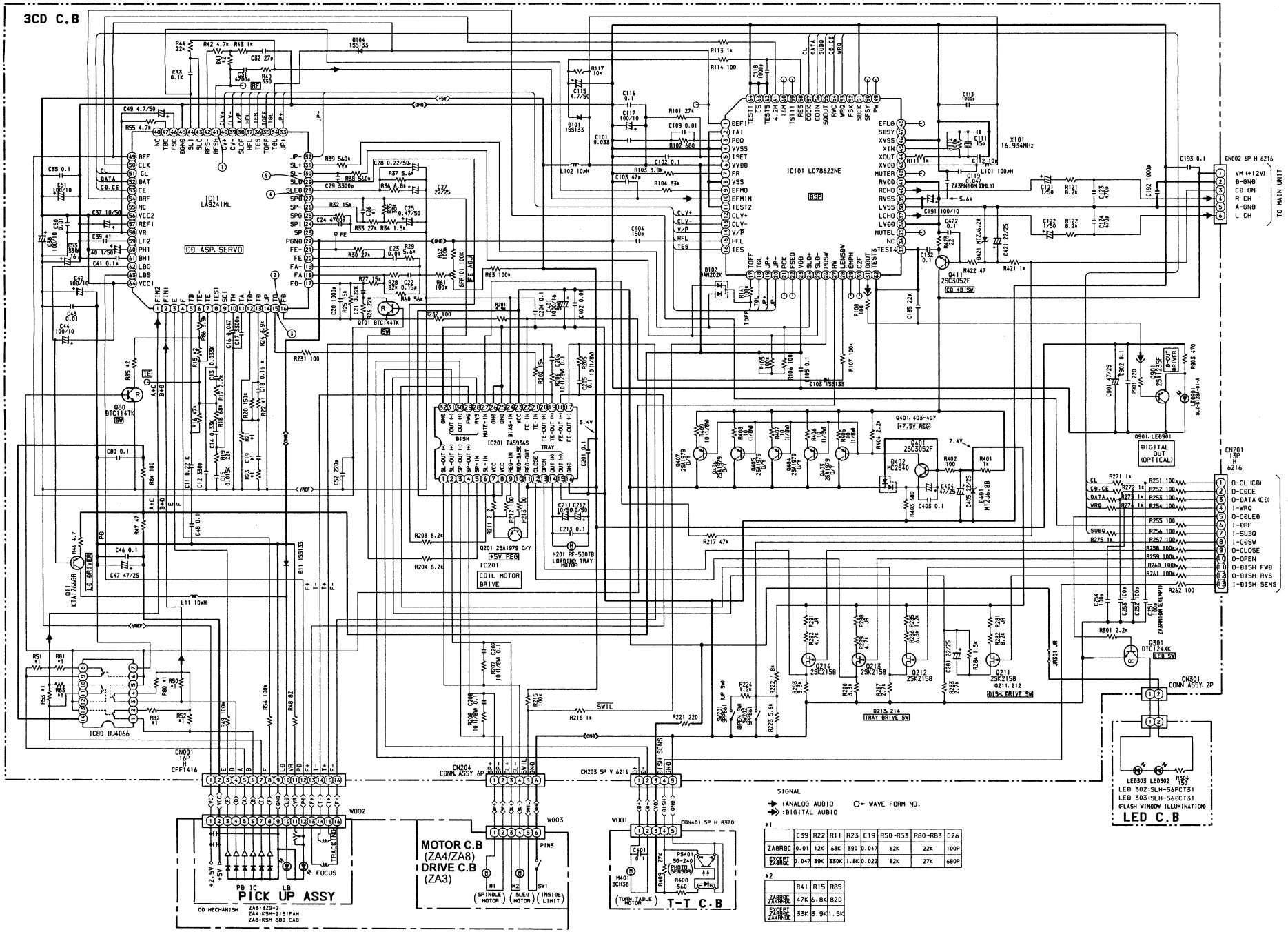
2SA1235
2SC3052
2SK2158
DTC114TK
DTC124XK
DTC144TK

BLOCK DIAGRAM



WIRING-1 (3CD/LED)

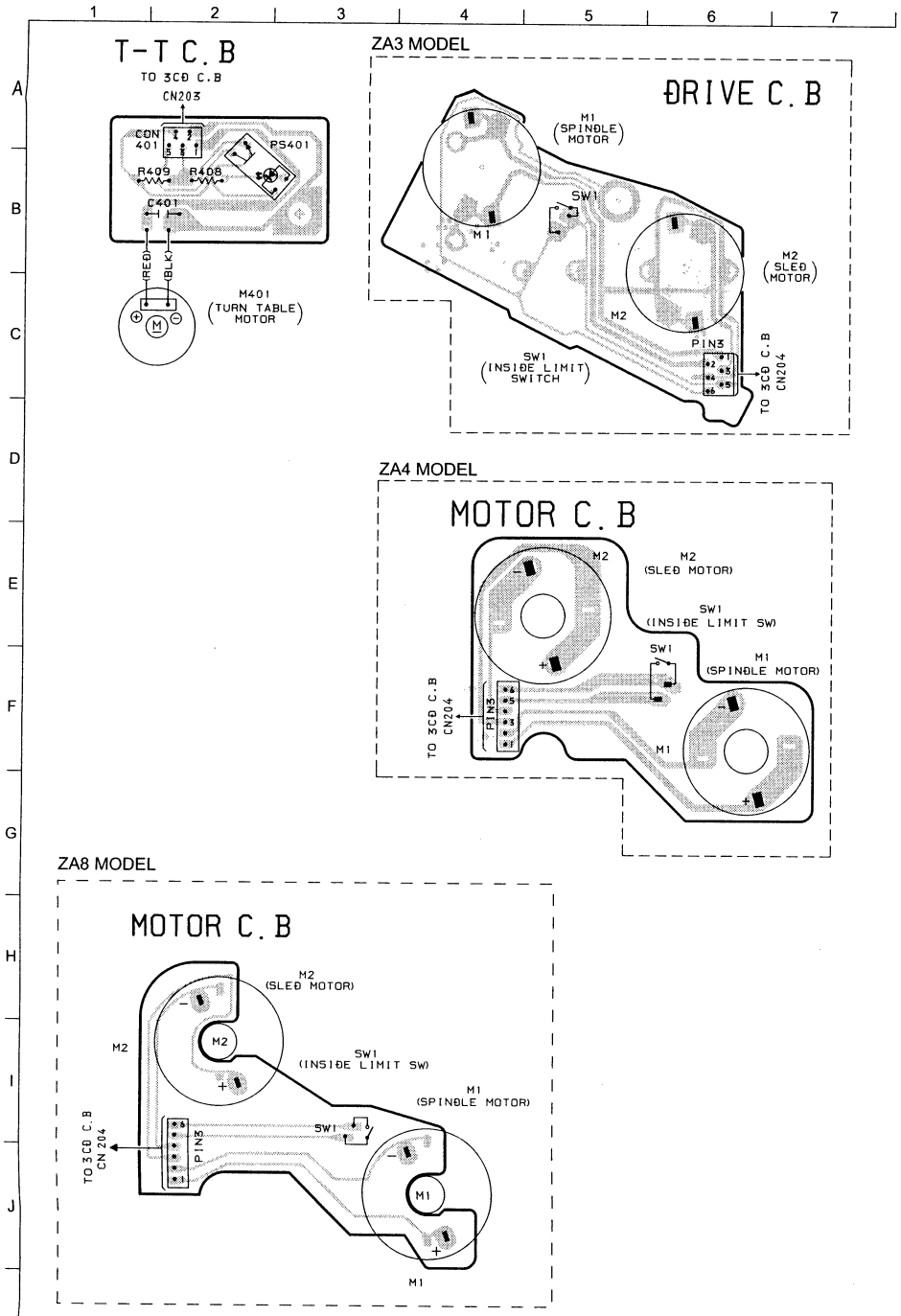




	C39	R22	R11	R23	C19	R50~R53	R80~R83	C26
ZA8R0C	0.01	12K	68K	390	0.047	62K	22K	100P
EXCEPT ZA8R0C	0.047	39K	330K	1.8K	0.022	82K	27K	680P

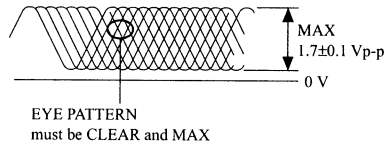
	R41	R15	R85
ZA8R0C ZA4R0C	47K	6.8K	820
EXCEPT ZA8R0C ZA4R0C	33K	5.9K	1.5K

WIRING-2 (T-T/MOTOR)

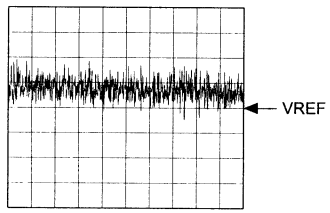


WAVE FORM

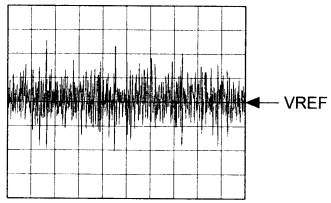
① IC11 Pin ㊶ (RFSH) VOLT/DIV: 0.5V TIME/DIV: 1μS



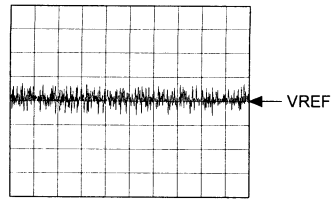
② IC11 Pin ⑯ (FD) VOLT/DIV: 100mV TIME/DIV: 1mS



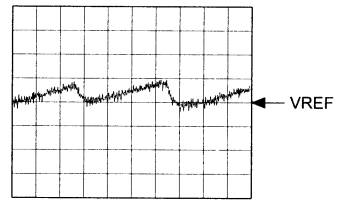
③ IC11 Pin ⑮ (TO) VOLT/DIV: 100mV TIME/DIV: 1mS



④ IC11 Pin ㉗ (SPD) VOLT/DIV: 100mV TIME/DIV: 1mS

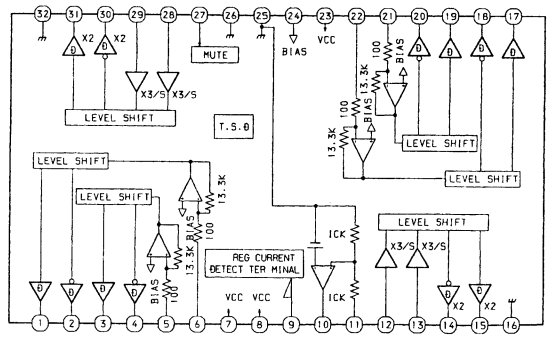


⑤ IC11 Pin ㉙ (SLD) VOLT/DIV: 200mV TIME/DIV: 2S



IC BLOCK DIAGRAM

IC, BA5936S

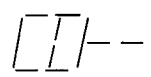
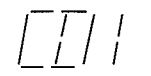
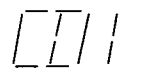


TEST MODE

1. How to Activate CD Test Mode
   Insert the AC plug while pressing the function CD button.
   All FL display tubes will light up, and the test mode will be activated.

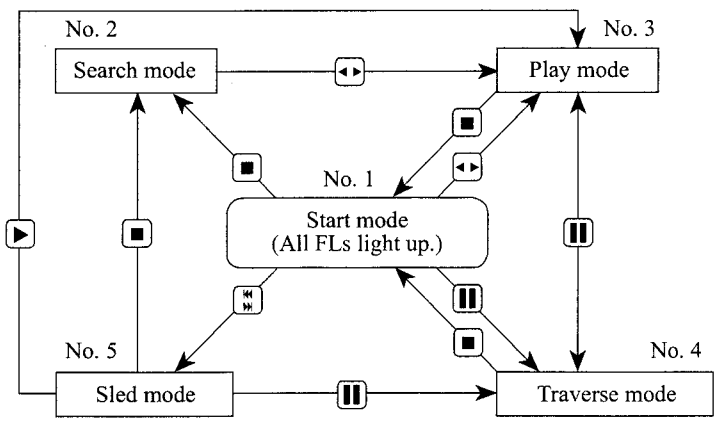
2. How to Cancel CD Test Mode
   Either one of the following operations will cancel the CD test mode.
   - Press the function button. (except CD function button)
   - Press the power switch button.
   - Disconnect the AC plug

3. CD Test Mode Functions
   When test mode is activated, the following mode functions from No.1 to No.5 can be used by pressing the operation keys.

Mode/No.	Operation	FL display	Operation	Contents
Start mode No.1	Activation	All lamps light	• Test mode is activated. • CD block power is ON.	• FL display check (All displays light.)
Search mode No.2	■ key		• Laser diode turns always ON. • Continual focus search (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes. * NOTE 1	• APC circuit check • Laser current measurement (Laser current control. Across a resistor connected between emitter and GND.) FOCUS SERVO • Check focus search waveform • Check focus error waveform (FOK/FZC are not monitored in the search mode)
Play mode No.3	◄ ► key		• Normal playback • Focus search is continued if TOC cannot be read. * NOTE 1	FOCUS SERVO/TRACKING SERVO CLV SERVO/SLED SERVO Check DRF
Traverse mode No.4	▮▮ key		• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON/OFF Tracking balance (traverse) check
Sled mode No.5	⏮ key ⏭	All lamps light	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.
* NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the ▮▮ status is active. If they are pressed, playback will not be possible after the ▮▮ status has been canceled. If the ⏮ or ⏭ keys are pressed in the ▮▮ status, press the ■ key and return to the start mode (No.1).
* NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
   The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

IC DESCRIPTION

IC, LC78622NE

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	TEST2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLV–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24	SLD+	I/O	General purpose input/output pin 1 to 5.	The pin is controlled by the serial data command from microprocessor. When the pin is not used, set the pin to the input terminal and connect to 0V, or alternately set the pin to output terminal and leave the pin open.
25	SLD-	I/O		
26	PUSW	I/O		
27	RW	I/O		
28	LENSDW	I/O		
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	TEST3, TEST4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{\text{CQCK}}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{\text{RES}}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	TST11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	TEST5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{\text{CS}}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	TEST1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

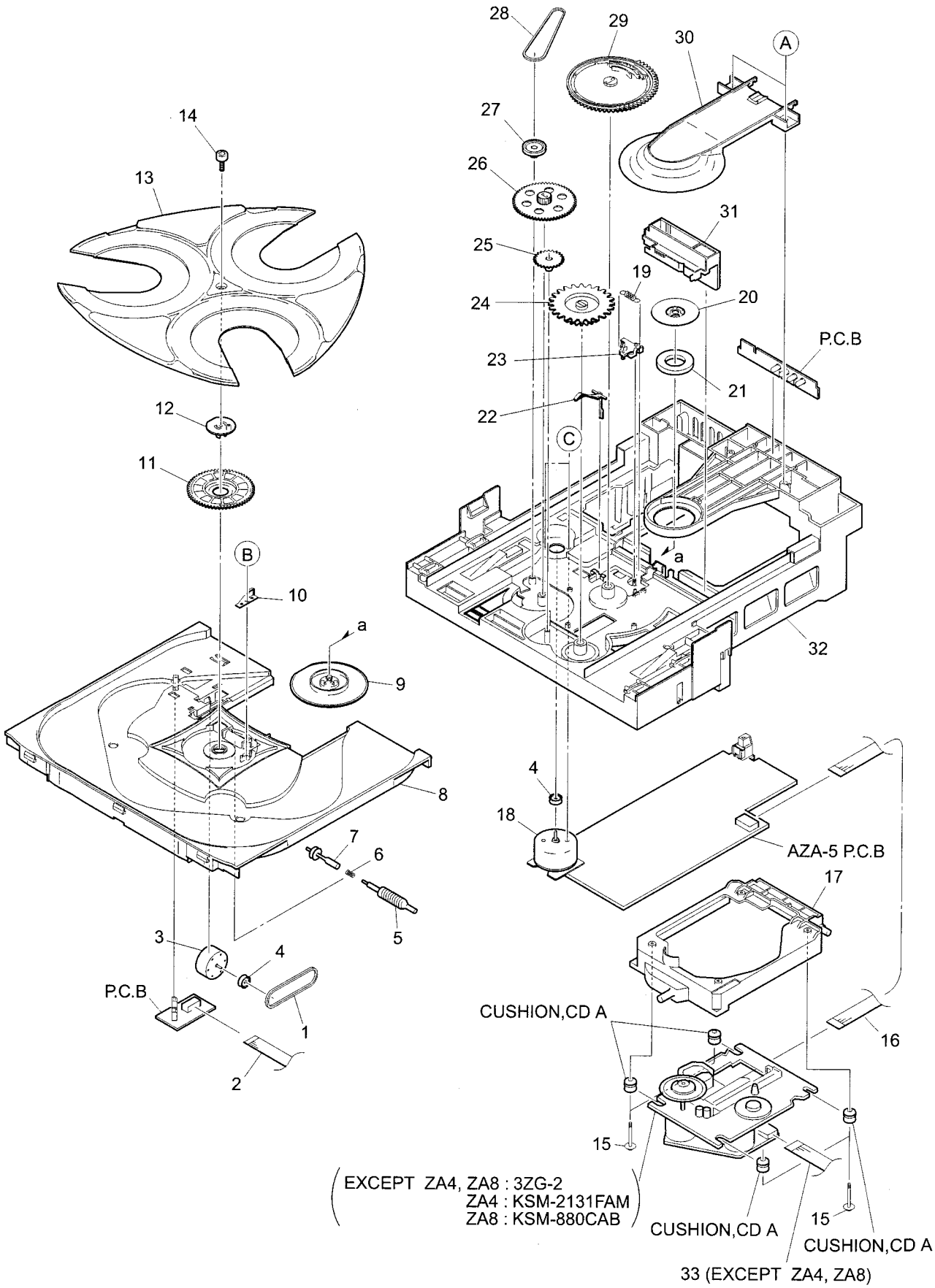
Note: The same potential must be applied to the respective power supply terminals. (VDD, VVDD, LVDD, RVDD, XVDD)

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES "Track Error Sense" comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	PGND	—	Analog signal GND.
23	SP	—	No connection.
24	SP1	O	Single ended output of the CV+ and CV– pin input signal.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLED	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	"High Frequency Level" is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSH	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	"Slice Level Control" is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	"Tracking Balance Control" EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	"Detect RF" RF level detector output.
55	NC	I	No connection.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REF1	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDO	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

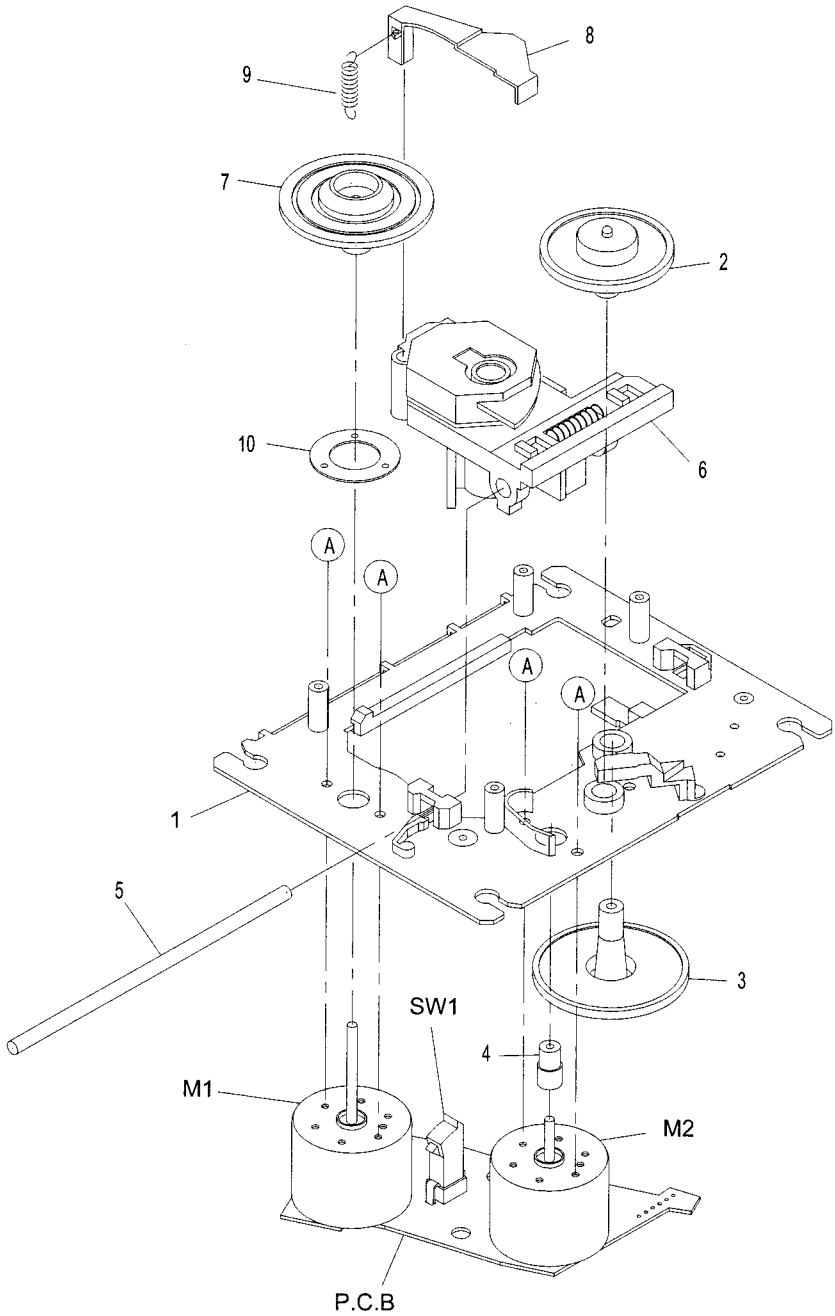
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-225-010		BELT,SQ1.0-63.3
2	84-ZG1-672-010		F-CABLE,5P 1.25 210MM WHITE N
3	87-045-364-010		MOTOR(BCH3B14)
4	84-ZG1-267-010		PULLEY,LOAD MO 8 <EXCEPT ZA3RDF,ZA3RNDF>
4	81-ZG1-212-010		PULLY,LOAD MO<ZA3RDF,ZA3RNDF>
5	84-ZG1-238-010		GEAR,WORM N
6	84-ZG1-248-010		SPR-C,WORM
7	84-ZG1-273-010		PULLEY,WORM 4 <ZA4RDC,ZA4RNDC,ZA8RDC>
7	84-ZG1-239-210		PULLY,WORM N <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
8	8A-ZG1-001-010		TRAY,NO3 BLU
9	84-ZG1-291-110		HLDR,MAGNET 4 NAT <ZA3RNDM,ZA4RNDC,ZA3RNDF,ZA3RNM,ZA3RNDCM>
9	84-ZG1-272-110		HLDR,MAGNET N 4 <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
10	84-ZG1-259-010		SPR-P,WORM
11	84-ZG1-221-010		GEAR,MAIN TT<ZA3RDF,ZA3RNDF>
11	84-ZG1-269-010		GEAR,MAIN TT 4 <EXCEPT ZA3RDF,ZA3RNDF>
12	84-ZG1-224-010		LEVER,TT <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
12	84-ZG1-288-010		LEVER,TT NAT <ZA3RNDM,ZA4RNDC,ZA3RNDF,ZA3RNM,ZA3RNDCM>
13	8A-ZG1-002-010		TURN TABLE,NO1 BLU
14	81-ZG1-239-010		S-SCREW,TT
15	81-ZG1-271-010		S-SCREW MECH REAR<EXCEPT ZA8RDC>
15	8A-ZG1-201-010		S-SCREW,MECH 880<ZA8RDC>
16	85-NFT-611-110		FF-CABLE 16P-1.0
17	84-ZG1-287-010		HLDR,MECHA NAT <ZA3RNDM,ZA4RNDC,ZA3RNDF,ZA3RNM,ZA3RNDCM>
17	84-ZG1-212-210		HLDR,MECHA NO2 <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA3RDCM>
17	84-ZG1-299-310		HLDR,MECHA NO3<ZA8RDC>
18	87-045-383-010		MOT,M9I50T28-2 <ZA4RDC,ZA4RNDC,ZA8RDC>
18	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA) <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
19	84-ZG1-211-010		SPR-E CAM S
20	84-ZG1-285-010		PLATE,MAGNET BLK<ZA3RN1DM>
20	81-ZG1-255-110		PLATE,MAGNET MK2<EXCEPT ZA3RN1DM>
21	83-ZG3-604-010		RING,MAG 2
22	83-ZG3-213-010		LVR,SW
23	84-ZG1-208-210		LEVER,CAM <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC>
23	84-ZG1-266-010		LEVER,CAM 8 <EXCEPT ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC>
24	84-ZG1-205-210		GEAR,TRAY (*)
25	81-ZG1-250-110		GEAR,TRAY RELAY MK2* <ZA4RDC,ZA4RNDC,ZA8RDC>
25	81-ZG1-291-110		GEAR,TRAY RELAY NO3 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
26	84-ZG1-206-110		GEAR,RELAY <ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC>
26	84-ZG1-274-010		GEAR,RELAY 8 <EXCEPT ZA4RDC,ZA4RNDC,ZA3RDF,ZA3RNDF,ZA8RDC>
27	84-ZG1-207-010		PULLEY,RELAY <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
27	84-ZG1-271-010		PULLEY,RELAY 8 <ZA4RDC,ZA4RNDC,ZA8RDC>
28	84-ZG1-209-010		BELT,SQ1.8-117.7
29	84-ZG1-203-410		GEAR,MAIN CAM <ZA3RNDM,ZA4RNDC,ZA3RNDF,ZA3RNM,ZA3RNDCM>
29	84-ZG1-215-410		GEAR,MAIN CAM BLU <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
30	84-ZG1-011-010		REFLECTOR,CD <ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
31	84-ZG1-216-310		SLIDE,MECHA CAM YEL <ZA3RN1DM,ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
31	84-ZG1-204-310		SLIDER,MECHA CAM <ZA3RNDM,ZA4RNDC,ZA3RNDF,ZA3RNM,ZA3RNDCM>
32	84-ZG1-201-410		CHAS,MECHA <ZA3RN1DM,ZA3RDM,ZA3RDF,ZA3RDCM>
32	84-ZG1-232-210		CHAS,MECHA N<ZA4RDC,ZA8RDC>
32	84-ZG1-292-010		CHAS,MECHA N NAT<ZA4RNDC>
32	84-ZG1-286-010		CHAS,MECHA NAT <ZA3RNDM,ZA3RNDF,ZA3RNM,ZA3RNDCM>
33	84-ZG1-630-010		CABLE FFC 6P-1.25 <EXCEPT ZA4RDC,ZA4RNDC,ZA8RDC>
A	87-067-703-010		TAPPING SCREW, BVT2+3-10 <ZA3RDM,ZA4RDC,ZA3RDF,ZA8RDC,ZA3RDCM>
B	87-067-981-010		BVT2+3-6 BLK
C	87-251-070-410		U+2.6-3<ZA4RDC,ZA4RNDC,ZA8RDC>

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

CD MECHANISM EXPLODED VIEW 1/1 (3ZG-2E3)

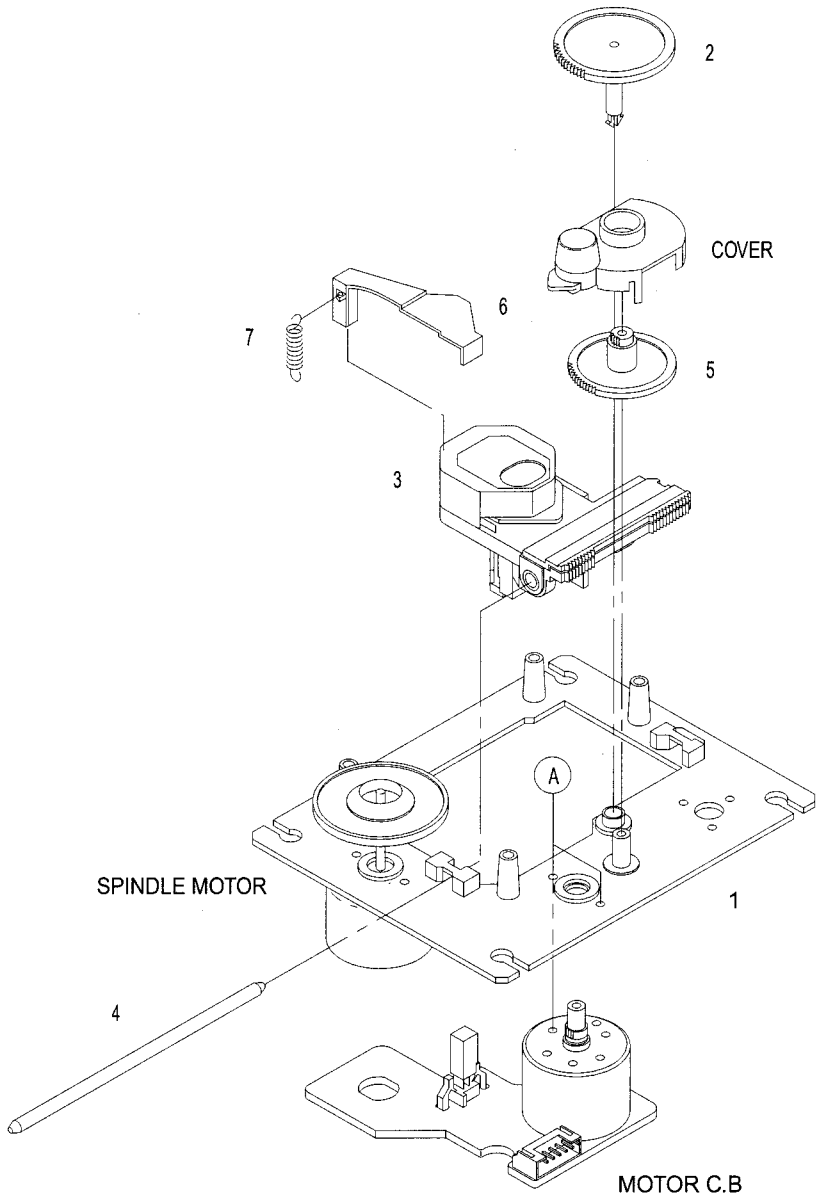


CD MECHANISM PARTS LIST 1/1 (3ZG-2E3)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-243-310		CHAS ASSY,SHT
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR,MOTOR 3
5	83-ZG2-253-110		SHAFT,SLIDE 5
6	87-A90-836-010		PICKUP,KSS-213F
7	83-ZG2-227-310		TURN TABLE,C1
8	83-ZG2-245-510		LEVER,SHUTTER(*)
9	83-ZG2-250-110		SPR-E,SHT 2
10	83-ZG2-241-110		PLATE,C2
A	87-261-032-210		V+2-3

CD MECHANISM EXPLODED VIEW 1/1 (KSM-2131 FAM)

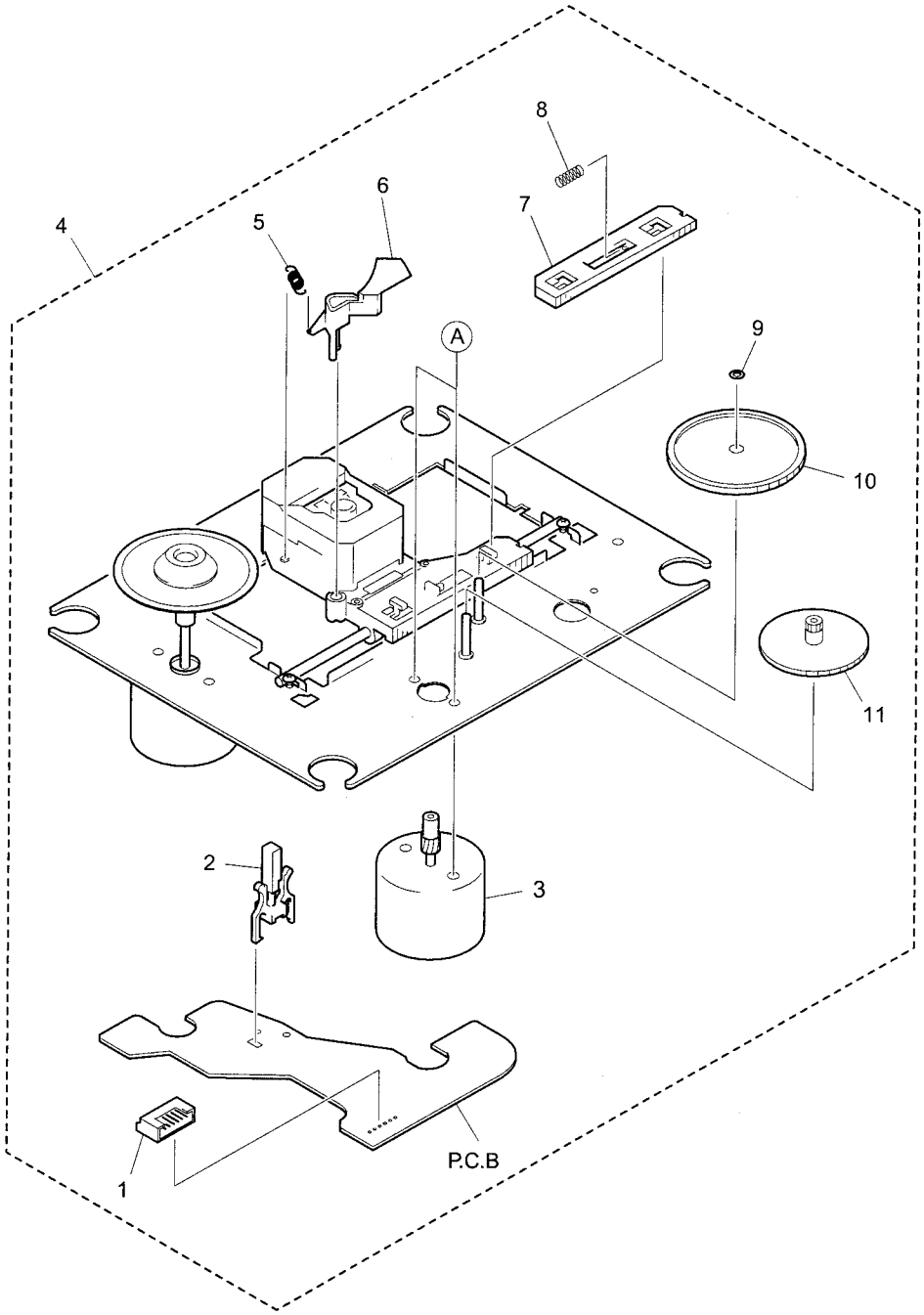


CD MECHANISM PARTS LIST 1/1 (KSM-2131 FAM)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	9X-264-629-220		MOTOR CHASSIS ASSY(MB)(FR)
2	92-626-907-010		GEAR(A)(S)
3	87-A90-836-010		OPTICAL PICK UP KSS-213F
4	92-626-908-020		SHAFT SLED
5	92-627-003-010		GEAR(B)
6	92-646-697-020		LENS SHUTTER(F)
7	92-646-702-010		SPRIG EXTENSION
A	97-621-255-150		SCREW+P2-3

CD MECHANISM EXPLODED VIEW 1/1 (KSM-880CAB)



CD MECHANISM PARTS LIST 1/1 (KSM-880CAB)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	91-564-722-110		CONN,PIN 6P
2	91-572-085-110		LEAF SWITCH
3	9X-264-655-010		SL MOTORR ASSY
4	M8-ZZK-C90-070		KSM-880CAB
5	92-647-416-020		SPRING EXTENSION
6	92-647-595-020		SHUTTER B
7	92-647-732-010		NS SLIDE RACK
8	92-647-742-010		SPRING COMPRESSION
9	93-321-813-110		POLI WASHER
10	92-647-407-010		GEAR A
11	92-647-408-020		GEAR B
A	93-713-786-510		SCREW,+P2-3

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL